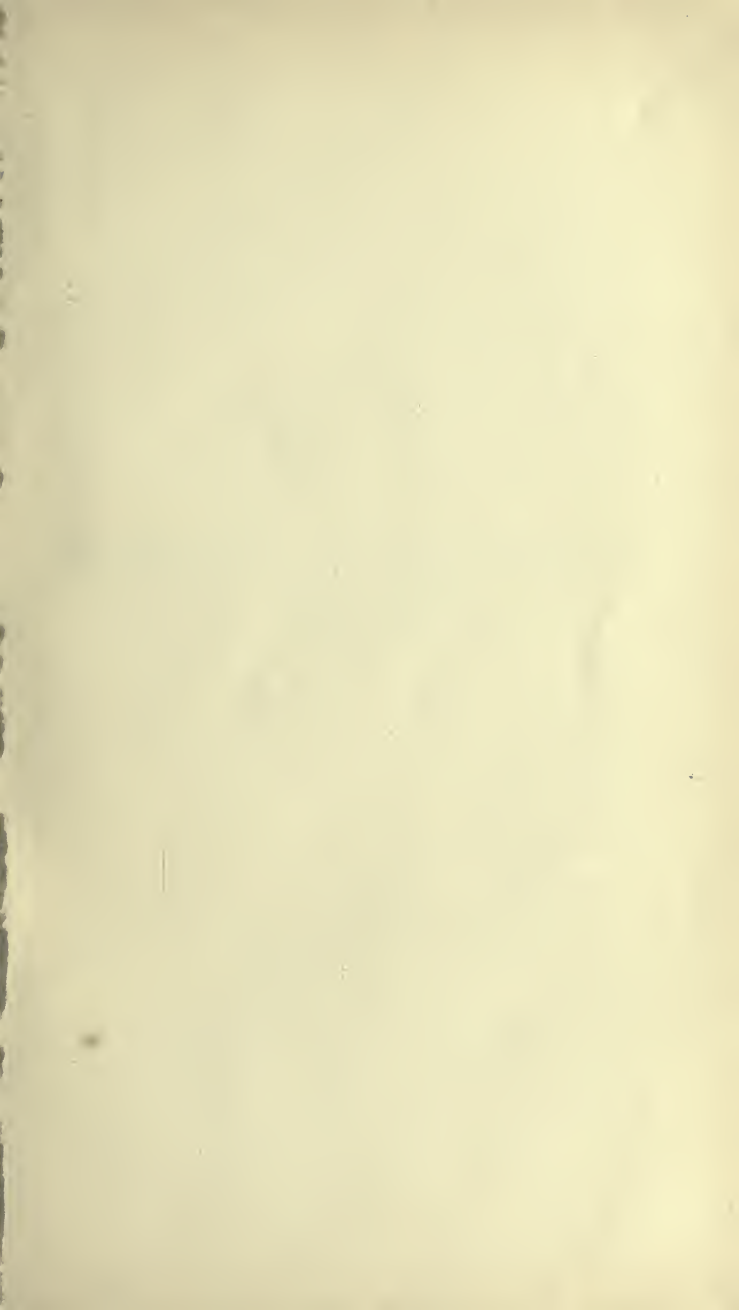


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FROEBEL'S CHIEF WRITINGS ON
EDUCATION

EDUCATIONAL CLASSICS

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FROEBEL'S CHIEF EDUCATIONAL WRITINGS. Edited by S. S. F. FLETCHER, M.A., Ph D., Lecturer in Education in the University of Cambridge, and JAMES WELTON, M.A., Professor of Education in the University of Leeds.

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LONDON : EDWARD ARNOLD

EDUCATIONAL CLASSICS

General Editor: Prof. J. W. ADAMSON

FROEBEL'S CHIEF WRITINGS
ON EDUCATION

RENDERED INTO ENGLISH

BY

S. S. F. FLETCHER, M.A., PH.D.

LECTURER IN EDUCATION IN THE UNIVERSITY OF CAMBRIDGE

AND

J. WELTON, M.A.

PROFESSOR OF EDUCATION IN THE UNIVERSITY OF LEEDS



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GENERAL PREFACE

THE belief which inspires the editors of the volumes included in this series is one which should find a ready adherence from all who accept the doctrine of development. That belief may be summed up in the assertion that the present is both the child of the past and the parent of the future. Hence the high value of all forms of historical study. The educational theory and practice of a community are not things which arise *e nihilo* ; they are the result of the thoughts, activities, conditions, and circumstances which constituted the community's past life, especially as these were more directly related to the upbringing of the young. This is so far true, that an intelligent and effective comprehension of any existing educational system can only be attained when its antecedent conditions are known and appreciated.

Educational history furnishes a key to the understanding of many of the problems of aim, administration, organization and method, which confront the student to-day. It will also help him to assume a just attitude towards the future, dispose him to avoid routine, to beware of prejudice, and to keep an open mind with reference to suggested change. History is the true prophylactic against the fogeneity which besets the schoolmaster, the committee-man and the official.

The influence exerted by the lives or writings of

individual thinkers is one of many factors of the protracted development of education. But many have written, and written well, on education, whose effect upon practice has been negligible. The aim of the present series is to present only such authors as have shaped subsequent educational history, or who at least have depicted with authority the educational ideas and practice of their own time.

There was in Friedrich Froebel a large measure of that mysticism which has been so frequently manifested in the men of his race ; but he lacked the direct utterance of a Martin Luther. His thought is frequently hard to follow, and his expression is seldom marked by clarity. The editors of this volume have set themselves the task of presenting, in a form which will not repel the English reader, the principal writings of one whose deeds and whose words still greatly influence the practice of education in this country and in America.

J. W. A.

TRANSLATORS' PREFACE

WE have attempted to present Froebel's chief works on education in as intelligible a form as possible. Our rendering seeks to give his exact meaning, but not his own phraseology, which is often confused and unnecessarily prolix. We believe that the true art of translation is to express the author's thought as precisely as possible in the idiom of the new language. This we hope we have succeeded in doing.

We have made some re-arrangement, especially in *The Education of Human Nature*, so as to bring together all the author had to say on the same subject. Thus, the earlier and later portions of that work have been amalgamated, and in places summarized, according to the topics treated. We have preferred to translate *Menschen-Erziehung* as *Education of Human Nature* rather than as *Education of Man*, because that seems to us more consonant with the spirit and meaning of the book. Although we have condensed this greatest of Froebel's works we have omitted little, and, we believe, nothing of permanent value. The chief omission is of much of the treatment of crystallography, which is now recognized as of little practical worth.

The second part of our book consists of extracts from Froebel's writings on the Kindergarten, so chosen as to show their spirit and general method. But the detailed

working out of the plays and occupations has only been briefly indicated. We have adopted this plan both because it is impossible to give such details except at very great length, and because modern kindergarten practice has departed somewhat widely from Froebel's own scheme.

We have not translated the *Mutter- und Kose-Lieder*, because it seemed impossible to make a useful and representative selection. The principles which underlie the songs are contained in what we have given, and English practice needs an analogous set of verses related to English life rather than a rendering of the original German songs.

The text used is that edited by Friedrich Seidel, published in 1883, except in the Introduction, where the extracts from the *Autobiographie* are translated from the edition of Dr. Wichard Lange, published in 1862.

In the Introduction we have attempted to show the relation of Froebel to the general stream of educational thought, and to discriminate between the vital truth in his doctrines and the excrescences due to his time and personality. The value of Froebel to the educators of to-day lies in his spirit and in his general conception of the educative process, and that we believe we have presented fully and fairly. That our efforts may assist our fellow-workers is our earnest hope.

S. S. F. F.
J. W.

CAMBRIDGE,
October, 1912.

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CHRONOLOGICAL OUTLINE OF FROEBEL'S LIFE

1782. Birth, April 21st.
1797. Goes to Neuhaus as a forester's apprentice.
1799-1801. Studies at Jena.
1802-03. Actuary in Forestry (Bamberg).
1805. Goes to Frankfurt a/Main; becomes teacher at Gruner's Model School; visits Pestalozzi's institution at Yverdon.
1807. Becomes tutor to the sons of Herr von Holzhausen, near Frankfurt.
1808-10. With his pupils at Pestalozzi's Institute at Yverdon.
1810. Returns to Frankfurt.
1811-12. Studies at the Universities of Göttingen and Berlin.
1813-14. Serves in Prussian Army against Napoleon.
1814-16. Assistant at the Mineralogical Museum in Berlin.
1816. Opens his General German Educational Institute at Griesheim.
1817. Transfers it to Keilhau.
— 1818. Marries Henriette Wilhelmine Hoffmeister.
1826. Publishes *The Education of Human Nature*.
1831-36. Switzerland [1831, Wartensee; 1832, Willisau; 1835, Burgdorf].
1837. Opens the Institute for educating young children in Blankenburg.
1839. Goes with Middendorf to Dresden to open an Institution for Little Children.
— 1839. His wife dies.
1840. Opens the General German Kindergarten at Blankenburg. (Travels to open various Kindergartens from 1840 to 1848.)
1848-49. Holds courses for training Kindergarten teachers at Dresden.
1849. Settles at Liebenstein: courses to Kindergarten teachers.
— 1851. Marries a second time (Luise Levin).
1851. Prohibition of Kindergarten by Prussian Minister, v. Raumer.
1852. Death, June 21st.

CHRONOLOGICAL LIST OF FROEBEL'S CHIEF WRITINGS

1809. Bericht an die Fürstin Regentin in Schwarzburg-Rudolstadt über Heinrich Pestalozzi.
1820. An unser deutsches Volk. 40 pp. oct.
(A kind of programme addressed to the German people.)
1821. Durchgreifende, dem deutschen Charakter erschöpfend genügende Erziehung ist das Quellenbedürfniss des deutschen Volkes. 48 pp. oct.
(A pamphlet of aphorisms.)
1821. Grundsätze, Zweck und inneres Leben der allgemeinen deutschen Erziehungsanstalt zu Keilhau bei Rudolstadt. 32 pp. oct.
1822. Die allgemeine deutsche Erziehungsanstalt in Keilhau bei Rudolstadt betreffend. 12 pp. oct.
1822. Ueber deutsche Erziehung überhaupt und ueber das allgemeine Deutsche der Erziehungsanstalt in Keilhau insbesondere. 32 pp. oct.
1823. Fortgesetzte Nachrichten von der allgemeinen deutschen Erziehungsanstalt in Keilhau. 60 pp. oct.
1824. Die Feier des Christfestes in der Erziehungsanstalt in Keilhau, den verehrten Eltern der Zöglinge, den Freunden und Gliedern der Anstalt als Christgabe.
(These five are pamphlets giving an account of the object, endeavours, and work at Keilhau.)
1826. Die Menschenerziehung, die Erziehungs-, Unterrichts- und Lehrkunst, angestrebt in der allgemeinen deutschen Erziehungsanstalt zu Keilhau, dargestellt von dem Vorsteher derselben F. W. A. Fröbel. 1. Band bis zum begonnenen Knabenalter. Keilhau, 1826. Verlag der Anstalt. Leipzig in Commission bei C. F. Dörffling. 497 pp.

1828. Brief an den Herzog von Meinigen.
 (An incomplete autobiographical sketch. Generally referred to as Froebel's Autobiography.)
1829. Die projektirte Volkserziehungsanstalt zu Helba bei Meiningen.
1836. Erneuerung des Lebens fordert das Jahr, 1836.
- 1838-40. "Kommt lasst uns unsern Kindern leben." Keime, Knospen, Blüten, Früchte aus dem Leben für Bethätigung dieses Wechselrufes geeinter Familien in Deutschland, in der Schweiz und in Nordamerika. Ein Sonntagsblatt für Gleichgesinnte und unter thätiger Mitwirkung derselben, im Vereine mit seinen erziehenden Freunden herausgegeben von Friedrich Fröbel, Blankenburg und Keilhau am Thüringer Walde, Burgdorf, im Kanton Bern, Columbus im Staate Ohio. Die Anstalt zur Pflege des Beschäftigungstriebes der Kindheit und Jugend. Leipzig, in Commission bei C. F. Dörffling zu verbreiten.
 (A periodical in which the Gifts were developed; most of the articles were written by Fröbel himself.)
1843. Mutter- und Kose-Lieder. Dichtung und Bilder zur edlen Pflege des Kindheitlebens. Ein Familienbuch von Friedrich Fröbel. Mit Randzeichnungen, erklärenden Texte und Singweisen. Blankenburg bei Rudolstadt, die Anstalt zur Pflege des Beschäftigungstriebes der Kindheit und Jugend.
1850. Friedrich Fröbels Wochenschrift. Ein Einigungsblatt für alle Freunde der Menschenbildung.
 (A periodical edited by W. Lange.)
1851. Zeitschrift für Friedrich Fröbels Bestrebungen zur Durchführung entwickelnd erziehender Menschenbildung zu allseitiger Lebenseinigung. Herausgegeben von Friedrich Froebel und seinen mit ihm geeinten Freunden. Redigirt von Dr. Bruno Marquart in Dresden.
 (A periodical edited by Dr. Marquart.)

BIBLIOGRAPHY

A. COLLECTED WORKS.

(i.) Edited by Dr. W. Lange, Berlin, 1862.

Vol. i. : Aus Froebels Leben und ersten Streben. Auto-
biographie und Kleinere Schriften.

Vol. ii. : Menschen-Erziehung.

Vol. iii. : Die Pädagogik.

(ii.) Edited by F. Seidel. Wien und Leipzig, 1883.

Vol. i. : Menschen- Erziehung.

Vol. ii. : Kindergartenwesen.

Vol. iii. : Mutter- und Kose-Lieder.

(iii.) Edited by H. Pösche.

F. Fröbels Kindergarten-Briefe.

B. MORE IMPORTANT ENGLISH TRANSLATIONS.

HAILMANN : Education of Man.

HERFORD : The Student's Froebel.

MICHAELIS AND MOORE : Autobiography.

JARVIS : Pedagogics of the Kindergarten.

JARVIS : Education by Development: the second part of the
Kindergartenwesen.

MICHAELIS AND MOORE : Letters on the Kindergarten.

ELIOT AND BLOW : The Mottoes and Commentaries of Friedrich
Froebel's Mother Play.

BLOW : The Songs and Music of Froebel's Mother Play.

LORD : Mother's Songs, Games, and Stories.

C. EXPOSITORY AND PRACTICAL.

- HANSCHMANN : Friedrich Fröbel. Die Entwicklung seiner Erziehungs-
sidee in seinem Leben.
- HANSCHMANN : Das System des Kindergarten nach Fröbel. (English
adaptation by F. Franks.)
- HANSCHMANN : Pädagogische Strebungen an der Wende des Jahr-
hunderts.
- STEGLICH : Über die pädagogische Idee Friedrich Fröbels in ihrer
philosophischen Begründung durch Frohschammer.
- MARENHOLTZ-BÜLOW : Gesammelte Beiträge zum Verständniss der
Fröbelschen Erziehungs-idee.
- MARENHOLTZ-BÜLOW : Theoretisches und praktisches Handbuch
der Fröbelschen Erziehungslehre. (Translated into English
under the titles : "Child and Child Nature: Handwork and
Headwork.")
- BLOW : Letters to a Mother.
- BLOW : Symbolic Education : A Commentary on Fröbel's Mother
Play.
- HUGHES : Fröbel's Educational Laws for all Teachers.
- HAILMANN : Kindergarten Culture in the Family and Kinder-
garten : Fröbel's System adapted to American Institutions.
- HAILMANN : Primary Methods.
- LONDON FRÖBEL SOCIETY : Essays on the Kindergarten.
- PEABODY : Education in the Home, the Kindergarten and the
Primary Schools.
- PEABODY : Lectures in the Training Schools for Kindergartners.
- SHIREFF : Short Sketch of the Life of Friedrich Fröbel, including
the Translation of some Letters to his First Wife.
- SHIREFF : Essays and Lectures on the Kindergarten.
- SHIREFF : Kindergarten at Home.
- GOLDAMMER : Die Praxis des Kindergartens. (Translated by
Wright.)
- WIEBE : The Paradise of Childhood.
- ED. BY BROWN SMITH : Education by Life.
- THE FRÖBEL SOCIETY : Child Life : A Monthly Magazine.

FROEBEL'S CHIEF WRITINGS ON EDUCATION

INTRODUCTION

Dominant notes in Froebel's work

belief that all forces of universe part of god

THE dominant notes in the work of Froebel are a passionate love of childhood and a lofty though vague idealism which continually tends to merge into an equally vague pantheism. These dominated his thought, and give the key-note in all his writings. It is these, too—and that largely by their very vagueness—which have won for him so fervent a band of disciples among those who find in the teaching of young children a real labour of love. Early childhood is one of the most attractive phases of human life, and nothing is more delightful than intimate association with it. The buoyancy and freshness of young children and their ever-varying moods are irresistibly charming to their grave and reverend seniors. The man or woman who cannot enjoy a romp with little children has, indeed, a character so defective that it seems to us “fit for any crimes.” But an occasional romp or an odd hour given to the little ones is one thing; the devotion of the greater part of one’s life to train and guide young children, to correct their petty but fruitful faults, to bear with their waywardness and gently lead it into the formation of good habits, to instil little by little good principles of life and conduct, is quite another. To devote one’s life to the training and teaching

of the immature cannot but tend to the narrowing of that life and the limitation of one's outlook on the world ; and the younger the children we deal with the more marked is this tendency, and the harder it is to resist it. As the chaplain in a well-known school story by a popular author remarks : "Ours is a dwarfing life—a belittling life, my brethren. God help all schoolmasters. They need it." Teachers who realize this danger seek wisely some wholesome corrective, and many have found it in Froebel's idealism and passionate love of humanity, which lifts the daily task into a higher and more sublime region than that of the commonplace drudgery and routine into which all school-work sinks with such fatal facility.

It is always profitable to attempt to trace to their source the ideas which inspired a prophet ; for there alone is to be found the secret of the strength of their influence in his teachings. The source of Froebel's devotion to childhood is clear and unmistakable. We find it in the neglect and misunderstandings which darkened his own child life. "Early was I plunged into the painful and oppressive struggle of life ; and an unnatural life and a defective education exercised their influence upon me," he wrote in his *Autobiographie*.¹ Neglected and misunderstood, he was denied the sympathy for which childhood so intensely craves. His mother died when he was nine months old ; his father lacked not only time but the loving insight which his child needed, and his step-mother seems to have been richly endowed with the qualities which have given the name its popular sinister significance. By such a spiritual environment many a child's nature has been permanently warped and debased. With Froebel its effect was far otherwise. It is true that his sensitive temperament, prone as it was

¹ *Leben*, p. 32.

to introspection and self-analysis, suffered cruelly. Nor did he ever forget those early tortures. But his soul issued from the furnace of affliction unseared and refined. Far from becoming embittered and cynical, he devoted himself and all his powers to the task of saving other children from similar bitter experiences. Great indeed is the debt which childhood owes him. For his example and his passionate pleading have done much to stimulate that loving sympathy for children which prompts to real effort to understand them, and does not rest satisfied with merely enduring them or with accepting them as amusing pets and playthings. And this is, happily, the characteristic note of our general present-day attitude towards the young, to an extent unknown to our forefathers. From the dark and lonely days of his own childhood Froebel drew constant supplies of fresh energy for the work to which he devoted his life.

The second source of Froebel's inspiration was that idealistic philosophy from which all the great German thinkers of the time derived their intellectual and spiritual nourishment. Towards the close of the eighteenth century Germany was politically at its lowest ebb, and the dream of a united German nation seemed doomed never to be realized. Just then came redemption—not from warriors and statesmen, but from poets and thinkers, such as “Schiller the poet of philosophers, and Schelling the philosopher of poets.” Not from the world of facts but from the realm of ideas came the new spiritual force which breathed into expiring Germany a fresh vitality, and won for her that proud position in the intellectual life of the human race which the whole civilized world has long so readily recognized.

The great unchaining of human energy, prompted by faith in the capacity of the human race to reach ever

higher levels of existence, which in France produced the Revolution, led in Germany to spiritual regeneration. "But that the necessary is also the possible was one of the greatest of the certainties of that mighty time. It was the idea of freedom which Kant had taught in his 'Thou canst, for thou oughtst' which Schiller and Fichte preached: 'To shape reality anew through ideas—that is the business and the real task of men upon earth; but to a will sure of itself and of its task nothing is impossible.' As a kind of empirical confirmation of this faith in the almightiness of the will the great Corsican, who grasped Europe in his fist and kneaded it according to his arbitrary pleasure, stood before the eyes of this race. Could that be impossible to a will determined by necessary ideas of reason which mere arbitrariness, void of such ideas, had accomplished? So ethical, political, and educational trains of thought united in this conclusion—it rests only with us and with our own determined will to realize the ideas of a new and higher civilization, and thereby introduce a new and great epoch of the history of the human race."¹

This was the practical idealism which found expression in Fichte's *Addresses to the German Nation*, and in the dramas of Schiller which roused young Germany to throw off the foreign yoke. Side by side with it was the metaphysical idealism of Schelling, which regarded nature as visible intelligence and intelligence as invisible nature; so that nature itself was viewed as the expression of that same reason which appears in man as self-consciousness. The conceptions of both spiritual and organic life were held to be applicable to all phases of natural existence. The aim of this idealistic philosophy, which culminated in Hegel, was "to give objective or absolute knowledge—

¹ Paulsen : *Das deutsche Bildungswesen*, p. 114.

to discover a logical principle expressive of the central life and power inherent in all existing things.”¹ This was a harking back to Spinoza, by whom both Fichte and Schelling were much influenced. With him it had been united with a thorough-going theological pantheism; nor did his followers altogether escape the tendency—obviously a very natural one—to identify the ultimate logical principle with God, and to see in all reality only an expression of the divine nature.

The romantic school of poets, with Goethe at its head, drew its inspiration largely from these idealistic sources. Nature was almost deified. It was at least regarded as a unity in which the divine being becomes manifest in all its fullness. The glamour of this conception, so readily warmed by poetic emotion, spread rapidly throughout Europe. It marked another side of the rebellion of the human spirit against the formal and artificial conventionalities of the eighteenth century; it gave another form of expression to the new demand for human freedom. So it was that the pantheistic idealism of Schelling, which was itself a kind of poetical Spinozism, may be traced in all the romantic literature of the late eighteenth and early nineteenth centuries—markedly in our own Shelley, and to a less extent in Keats, Coleridge, and Wordsworth.

Froebel undoubtedly came under this general influence. He never had the advantage of a rigorous philosophical training. His education was largely a self-education. The short time he spent at Jena and his interrupted studies at Göttingen and Berlin were mainly devoted to mathematics and the natural sciences. “Except in mathematics,” he tells us, “I attended no theoretical lectures, and of philosophical doctrines and views I gathered only as much as the intercourse of the life brought with it;

¹ Merz : *Leibniz*, p. 208.

though in this way I received many stimulating thoughts.”¹ But at that very time the university of Jena was at the height of its renown. It was the centre of German thought. There the new philosophy of Kant had been warmly welcomed, and there the Chair of Philosophy was successively filled by Fichte, Schelling, and Hegel.

Froebel’s philosophical reveries—for they can scarcely be called thoughts—were derived more from communion with nature than from study of systems, though his meditations and dreams were, as was but natural, dominated by the general trend of ideas that were in the air, so to say, among his fellow students. Throughout his life he was a philosophical dreamer rather than a philosophical thinker. His philosophy was an attitude of mind rather than a clearly conceived system.

His communion with nature was intimate and life-long. As a child the beautiful surroundings of his home in the Thuringian forest had entranced his dreamy introspective soul, and, he tells us, “Nature, the world of plants and flowers, as far as I was able to see and understand it, early became an object of my observation and reflexion.”² As an apprentice to the Thuringian forester at Neuhaus, he spent much time alone in the silent woods, and love and reverence for nature became a veritable religion with him. “My church-religious life now became a nature-religious life, and in the last half-year I lived entirely in and with the plants, which attracted me irresistibly, although as yet no sense of the inner life of the world of plants had dawned within my soul.”³

Thus, both by innate tendency and by early environment, Froebel’s mind was predisposed to welcome the current idealistic conceptions, which lend themselves so readily to a vague generality of statement and to a

¹ *Leben*, p. 55.

² *Op. cit.*, p. 34.

³ *Op. cit.*, p. 51.

semi-mystical absorption of mind and feeling in the contemplation of the infinite. That nature is visible spirit and spirit invisible nature ; that matter is only an appearance of which the reality is spirit, and therefore cognate with the individual soul ; that all nature lives and manifests its life in an infinite productivity ; that all creation is one with itself and with its Creator, in that all is spiritual ; that the individual spirit ever craves to find satisfaction in the apprehension of this essential unity—these are the essential features of Froebel's philosophical creed, and they represent, in the nebulous form in which his mind received them, the doctrines of Schelling and Fichte.

That in any circumstances he could have applied to his apprehension of them a rigid metaphysical and logical criticism is doubtful. His mind was too dreamy and mystical to allow clear and precise thinking to come natural to him. It is certain that his want of strict discipline in thinking—not only in philosophy but in any subject—and his long years of dreamy enjoyment of lonely nature both unfitted him for such a task and made it practically impossible that he should ever undertake it. In any case his tendency to find satisfaction in the vaguest of abstract general propositions not only led to indefiniteness of statement, but indicates an amorphous body of feelings centring round the core of the goodness and love of God towards his creatures and the consequent worth of human nature.

That his statements are often pantheistic in their essence and implications he does not recognize—for he rejected the charge of pantheism with horror. But the pantheism which he rejected was that crudest of forms which sees in nature “the body of God.”¹ The more

¹ See p. 98.

refined form of pantheism which identifies the reality of all existence with the divine nature, and claims for all things—including, of course, those that are evil—essential unity with the divine goodness, underlies his whole teaching. “Each thing exists only because the divine spirit lives in it, and this divine spirit is its essence” is the key-note struck in the first sentences of *Menschen-Erziehung*, and the assumption of this ultimate identity of nature and deity is implicit throughout, and explicitly stated in many places. That the kind of identification was not clear to his mind is certain. Many passages make God inherent in the world—and this is pantheism. In others the world seems to be regarded as inherent in God. This is panentheism—“a name given by Krause to his attempted reconciliation of theism and pantheism; the doctrine that God is neither the world, nor yet outside the world, but that the world is in him, and that he extends beyond its limits.”¹ This is the most natural interpretation of Froebel’s writing in a letter to Krause himself that education should prepare man “for all the stages of development of nature and the world which the individual and the race traverse in life; for the everlasting flux and reflux of each fresh moment of existence, for the eternal rest, the unceasing striving, the everlasting absorption in God.”²

Whatever interpretation be given to his statements of the relation of man and nature to God it is certain that Froebel was not in accord with the orthodox Christian doctrine that “God was ‘high above all nations,’ so high that the world in comparison with God cannot be said to *be* at all. In the sense in which God *is*, the world *is not*. The world has being, indeed, ‘analogous’ to the being

¹ Dewey : in *Dictionary of Philosophy and Psychology*.

² *Leben*, p. 143.

of God, but infinitely inferior. The world then is no emanation from God, no necessary 'shadow' cast by Godhead and projected outside itself: the world . . . owes its origin to a free volition of God, put forth at the beginning of time, at a distance from the present, remote, but not infinite; in other words, the world was *created* out of nothing, and owes its continued existence to the mere good pleasure of its Creator. As God is above the world, so the world is beyond and independent of the knowing mind of man."¹ When we contrast this doctrine with the teaching of Froebel, and compare his statement of the essence of Christianity² with that held by all Christian bodies—Catholic and Protestant—we feel no surprise that Froebel's writings were condemned by the Lutheran clergy as unorthodox, and that his efforts to educate children according to this faith were prohibited by the Prussian Government as contrary to the public good.

Froebel had more than a strain of mysticism in him, and in this he was not unlike many mediæval mystics whose philosophy sprang from a religious craving for intimate communion with the Deity. Like Duns Scotus he believed that not only the existence of all created things, but their very natures and essences, originated in the will of God; indeed, as has been seen, he went further, and identified those natures and essences with the divine nature and essence. The mediæval mystics felt keenly the intimacy of the relation between the finite and the infinite spirit, but were preserved from confusing them by their constant and implicit acceptance of the authority of the Church in matters of faith. Froebel had no such safe-guard, and in him that confusion is complete and persistent. From it, indeed, he drew his inspiration; on it, as a foundation, he based his theory of education.

¹ Rickaby : *Scholasticism*, pp. 43-44.

² See p. 88.

In addition to these more general influences, Froebel owed much—more probably than he himself ever recognized—to Pestalozzi. In the writings of Pestalozzi are found all the most valuable of the principles usually associated primarily with the name of Froebel, notably the fundamental axiom that the educative process is a continual reaction of the individual on his surroundings—a making of “the outer inner, and the inner outer,” as Pestalozzi first expressed it in a general and indefinite phrase, which, despite its vagueness and uncertainty, has become a kind of Froebelian shibboleth. Froebel tells us that, when he began to teach at Gruner’s Model School at Frankfurt, “the watchword of education and of instruction was *Pestalozzi*. That watchword was immediately impressed on me as my own, for both Gruner and another teacher in the school had been pupils of Pestalozzi, and the former had even written a book about his method of instruction. This name electrified me the more because it had entered into my own development and self-education as a source of strength and inspiration, though, indeed, imperceptibly as a breath of air. . . . It was, then, natural that anything and everything concerning Pestalozzi should powerfully impress me. . . . At once the resolution was formed to behold the life and work of this man who was striving so to think and act.”¹

In August, 1805, he, therefore, paid a brief fortnight’s visit to Yverdon, where, he tells us: “I felt that heart, mind, and spirit, would soon have been destroyed had I, in the mood in which I then was, remained longer with Pestalozzi, though I desired to do so. Just at that time the life there, both internally and externally, was marked by strong excitement and most strenuous endeavour.”²

In recording his impressions of his visit he acknow-

¹ *Leben*, pp. 74-76.

² *Ibid.*, p. 76.

ledges that "I was still very unfamiliar with both the theory and the practice of teaching. I was really living upon the recollections of my own school days, and was, therefore, equally incapable of examining the details of the system and its structure as a whole."¹ Still, he did not feel debarred from criticism. It seemed to him that the inter-relations of the system as a whole "really did not exist either in clear consciousness or in external manifestation."² Consequently, "by what I saw I was at once raised and depressed, stimulated and bewildered."³

He thus sums up his impressions: "The fruit I gathered from my short stay with Pestalozzi was that I saw the instruction of a great educational institution carried on according to a clear and well-ordered plan. That plan I still possess. In my judgement it contained much that was excellent and much that was disadvantageous. The arrangement by which the same subject was taught at the same time in all the classes seemed to me particularly happy. The topics of instruction were fixed for each class, but the pupils were distributed afresh for each subject according to their capacities, so that the body of pupils in each class varied according to the subject. The advantages of this struck me at once as so undeniable that since that time I have always adopted it, nor could I now relinquish it.

"The disadvantageous feature of the plan, which I felt even though I was still dimly groping after my own principles, was its incompleteness and one-sidedness. Several of the subjects of instruction essential to the complete and harmonious development of man seemed to me to be put too much in the background, to be treated in a step-motherly way, and to be worked out inadequately."⁴

¹ *Leben*, p. 76.

² *Ibid.*

³ *Ibid.*

⁴ *Ibid.*, pp. 76-77.

Froebel then examines the most important subjects in some detail and criticizes the methods of instruction on the ground that they were generally too dogmatic, and appealed too little to the initiative of the pupils.

The questions fermenting in his mind for some years after this visit, and especially after he had left Gruner's school to undertake the private tuition of three young brothers, were: "What is elementary instruction, and what is the real meaning of the methods laid down by Pestalozzi? Generally, what is the object of instruction?"¹ In answering this last question he tells us: "I started from the following observations: Man dwells in a world of objects, which affect him and which he desires to affect. So he must know their nature and essence, and their relations to each other and to man. The objects have form (doctrine of form), magnitude (doctrine of magnitude), and manifoldness (doctrine of number).

"By the expression 'external world' I meant only nature. I lived so much in nature that artistic and other human productions did not exist for me; so that it required a long struggle before I could bring myself to include such results of man's work among the means of elementary education. . . . It was a great extension of my inner and outer horizon when I did include the whole of man's productions in the expression 'external world' . . .

"The highest proposition which arose in my mind at that time was 'All is unity; all rests in unity, starts from unity, strives and leads towards unity, and returns into unity. This striving in unity and for unity is the ground of the various manifestations of human life.' But between my inner vision and my outer knowing, perceiving,

¹ *Leben*, p. 89.

and doing, was a great gap. So it appeared to me that everything that ought to be included, and must be included, in the education and instruction of human nature must be necessarily conditioned and given by that nature in its essential stages of development, and by the relations it holds to its surroundings. He who has been trained to respect and to know those relations, to control and to consider them, seemed to me to be educated and instructed. *

“At that time I worked much and strenuously, but the means as well as the purposes of instruction confronted me in such a multitude of isolated and unordered fragments that during several years I advanced but a little way in my endeavour to reduce all to order, and to set forth everything in living—or, as I commonly expressed it at the time—in ‘inner’ connexion. . . .

“It is true that the Pestalozzian means appeared to me to be necessary, but by no means to possess a sufficient life-giving power. What especially oppressed me was the want of any organic connexion between the subjects of instruction. This I felt keenly in my dealings with my pupils, though it was not apparent to them. I was soon completely assured that true education is that joyous and free activity which springs from beholding the whole as a unity, and is conditioned by the inherent living force which is the essence of the whole.”¹ ✓ ✓

That his conception of the work of an educator, as he himself confesses, “at first was very limited” is evident from his own description of it: “It consisted in the life, the walks, the wanderings in the fresh air.”² But he was feeling his way, conscious of the very qualified nature of his success. He writes: “I may describe briefly my first work as an educator by saying that I strove with all

¹ *Leben*, pp. 89-90.

² *Ibid.*, p. 91.

earnestness to give my pupils the best possible instruction, the best possible education and development, but I could not possibly attain this aim in the conditions under which I was then living and at the stage of culture I had then reached. When I became fully conscious of this the thought arose in my mind that my object could nowhere be better attained than at Yverdon with Pestalozzi. I expressed this conviction with great determination; and it was accordingly decided in the summer of 1808 that I should go there with my three pupils.”¹

His anticipations were high. “If I attempt to put in one word what I expected there, it was a strong and vigorous spiritual life of boyhood and youth, manifesting itself in all forms of creative activity, and so finding satisfaction for all human cravings, and employment for all bodily and spiritual capacities. . . . There was no question troubling me to which I did not expect to find an answer at Yverdon.”²

He found, indeed, “a mighty, all-sided, stimulating life,” but this, he records, “could not blind me to many evident imperfections and deficiencies, but the general strenuousness, though even then shown in different and even incompatible forms of effort, took the place of inner connectedness and unity. . . .

“This want of unity of endeavour both in means and in purpose I soon felt. I recognized in it the incompleteness, defectiveness, and inadequacy, of the means of instruction as then worked out. . . . I felt something higher, and believed in a higher productive principle—the inner unity of the whole. I even believed that I saw it myself more clearly, though not with greater living force, than did Pestalozzi.”³

After a stay of two years he tells us: “On the whole I

¹ *Leben*, p. 96.

² *Ibid.*

³ *Ibid.*, pp. 97-98.

passed at Yverdon an elevating and a glorious time, and one decisive for my life. At the end, however, the want of internal unity and inevitableness, as well as of external comprehensiveness and perfection, was more and more apparent to me.”¹

It is plain that the vague idealistic conception of the essential unity of all things already obsessed his mind. Two years later, while he was a student at the university of Göttingen, he tells us that “The inner absolute law embracing all things, which I recognized everywhere, was before my mind with such clearness and power that I saw nothing in nature and in life in which it had not found expression, though in very different degrees of immediateness and stages of generality.”² In his later work the exaggerated emphasis he laid on this principle led to much that was artificial in his straining to exhibit a corresponding unity in the external means of instruction. It would not be too much to say that all that is most valuable and fruitful in the doctrine of Froebel has its root in Pestalozzi, while its most characteristic defects were the outcome of his pantheistic idealism.

What, then, was Froebel’s final estimate of Pestalozzi’s system? In his *Report to the Princess of Schwarzburg-Rudolstadt* he writes: “The demands which Pestalozzi makes on teachers are simple and natural. They are based in the nature of both teacher and pupil. So they are easily understood and just as easily fulfilled by every one, even the country teacher, who unites capacity and natural aptitude with a good will, as soon as he is suitably instructed about them.

“It is the same with the subjects in which Pestalozzi desires that the pupils should receive instruction. They, too, proceed from the simple, and their course is determined

¹ *Leben*, p. 101.

² *Ibid.*, p. 105.

by the necessary sequence of consequences inherent in the nature of each subject. Once the teacher has grasped the starting-point he can, therefore—provided he has been instructed in the essential nature of his subject—not only easily educate himself by observation and self-guided practice according to the requirements of his instruction, but can even successfully instruct his pupils in that subject. The teacher who is impelled by a good will to perfect himself will soon see with inmost joy the glorious results of the Pestalozzian method in himself. He will find that it is based on his own nature, and so Pestalozzi's principles will become his own and will pass into his own life. Then he will present the Pestalozzian method with spirit, love, warmth, life, and freedom, in all his actions, and so will instruct his pupils as his children and his brothers, according to their needs. . . .”¹

“All the errors which now oppress schools both in town and country would be removed by the introduction of this method. | The inevitable consequences of organizing schools according to Pestalozzi's principles will be order, constant self-directed active occupations which engage both mind and heart, graduated advance in culture, living and fundamental knowledge of the pupils and insight into their natures, true love of the pupils for instruction, for the school, for the teacher, the banishment of superficial information from schools of all kinds and so from amongst the people. . . . Simplicity, content with rank in life, fixed and independent character, thoughtful conduct, practical virtue, true religion, will mark the citizen educated according to Pestalozzi, and family and civic happiness will be ensured. . . .”²

“The Pestalozzian method nowhere fixes a limit, nowhere imposes an obstacle or a barrier to the develop-

¹ *Leben*, pp. 202-203.

² *Ibid.*, p. 209.

ment of man, to the infinite advance of his education towards perfection, or to the extent of his knowledge confined within the limits of neither time nor space."¹

Early life, idealism, and Pestalozzi, were, then, the three sources from which flowed the doctrine of Froebel. To Pestalozzi it owed its living power; though Froebel grasped more clearly than did Pestalozzi the vital principle that all true development, and consequently all true education, is a self-directed process—that purpose is the key-note of human culture and advance. It was the emphasis which he laid upon this which makes Froebel one of the princes of education and gives him an enduring place in the history of thought. Unhappily, the moulding of his early days and his vague idealistic philosophy combined with his naturally dreamy and contemplative temperament to tinge his thought with mysticism, and to deface his system with not a few mathematical and pseudo-metaphysical extravagances.

Of that system the main features may be thus summarized—

(i) That man is in essential unity with all things, especially with nature, because everything is a manifestation of the divine being.

(ii) That a continuity of development is found equally in the child who is to be educated and in the external means by which his education is achieved. From this follows the doctrine that the laws of development in a subject of instruction are to be found in the subject itself, and that by a kind of pre-established harmony they coincide with the successive needs of the developing human soul.

(iii) That, in Pestalozzi's words, "it is life that educates," and consequently, that the essence of the educative process is to evoke and direct purposes and to

¹ *Leben*, p 213.

supply appropriate means for the pursuance of those purposes by the child.

(iv) That such pursuance of purpose is, especially in childhood, necessarily connected with bodily activity.

(v) From this follows his conception of discipline—that the essential function of discipline is to allow the divine spirit in man to come to perfection. Consequently, education should protect and stimulate rather than coerce and constrain. “The fundamental principle of education, instruction, and teaching, should be passive and protective, not directive and interfering.”¹ . . .

“Education must be passive and protective rather than directive, otherwise the free and conscious revelation of the divine spirit in man—which is the free development of the human race—is lost.”² . . . “Purely directive education should not begin until self-consciousness is attained, for only then is the essential nature of the individual evident. Hence, before the origin and kind of the defect of the primitive healthy nature in any pupil become manifest all that can be done is to place him in an environment so adapted to him that it will make clear both to himself and to others the consequences of his actions, and at the same time afford the fewest opportunities for the exercise of evil tendencies. . . . In all good education, in all real instruction, all true teaching, then, necessity should evoke freedom, law should induce self-determination, external compulsion should develop internal free-will, outer hatred should beget inner love.”³

This last passage is important and needs to be emphasized, for it sets forth an aspect of Froebel’s teaching about discipline which is too often ignored. His doctrine has frequently been expounded as if it were the negation of all human constraint preached by Rousseau. It is

¹ See p. 32.

² See p. 34.

³ *Ibid.*

not so at all. Froebel sees clearly that constraint is necessary in order to train the will to resist impulse and to follow purpose. ✓ The main purpose in the training of boyhood through instruction," he tells us, "is to cultivate an active, firm, and persistent will, bent on the pure object of a true human life."¹ But all such training to be effective must work on the inner core of the child's life. "That a boy's natural activity may be raised to genuine firmness of will it is essential that every exercise of it should both spring from, and be in constant relation to, the development and formation of his spirit."²

Discipline must direct instinctive impulse, not simply oppose and thwart it. The child's "spiritual power is weakened by meeting with such an obstacle as the parent's will, and with frequent repetition of such inhibition it sinks into absolute apathy."³ Arbitrary interference and careless neglect are equally sources of most boyish faults.⁴ "Under each human fault lies a good tendency which has been crushed, misunderstood, or misled. Hence, the infallible remedy for all human wickedness is first to bring to light this original good tendency, and then to nourish, foster, and train it. Then the fault will ultimately disappear."⁵

Self-control must be cherished and exercised, for only "by renunciation and by the sacrifice of the material for the sake of the spiritual, does man approach the perfection of his being."⁶ The physical powers should be cultivated, because "without this, real discipline, which is the very centre of education in boyhood, is impossible. Discipline implies that the boy in all his actions respects his own human nature because he realizes its dignity and worth. The more clearly he recognizes the requirements

¹ See p. 65.

² See pp. 65-66.

³ See p. 67.

⁴ Cf. p. 74.

⁵ See p. 76.

⁶ See p. 92.

of his true humanity, the more definitely and firmly should the educator insist on the fulfilment of those requirements. He should not even shrink from severity and infliction of punishment if the good of the pupil demand it ; for boyhood is the time for discipline.”¹

When the teachings of Froebel on discipline are thus collected and collated it is evident that he was far indeed from adopting the extravagances of Rousseau, who would leave the development of the child's character to the reaction of his spontaneous impulses on his physical environment. With Froebel discipline aims at aiding the development of a strong will. It is not for the convenience of parent or teacher but for the good of the child. It is “protective,” but the things against which the child needs most protection are the unbridled impulses of his lower nature. Such protection can only be exercised in union with the child's own will. So discipline is not a mere external force but an inner influence. External constraint and punishment have their place, but their function is not that of mechanical pressure but that of inward inspiration. The whole aim of education is to develop the power of persevering pursuit of good purposes, and the chief instrument at the disposal of the educator is discipline. Its success depends on the spirit in which it is exercised, and on the relation of trust and confidence established between the educator and the child. As to whether Froebel does not seem to postpone unduly the discipline of constraint there may be differences of opinion. That he recognizes its necessity and its value cannot be disputed.

(vi) From this principle of discipline follows that of the importance of early training, because the trend given to the spiritual life in early youth is likely to be

¹ See p. 95.

permanent. “The first thing the child feels must be that the purpose of everything done for him by his parents and other adults is to mould the inner life, as both itself a whole, and a part of a greater whole. This feeling will be the seed from which will grow love and gratitude to his parents, respect and honour for age. The ennobling sense of the unity of all life, which is revealed in love, will bear imperishable fruit in his soul and show itself in his actions. Something abnormal in the child would be indicated were it otherwise.”¹ “The education of boyhood rests wholly upon that of childhood. Activity and strength of will grow out of activity and strength of feeling. If the latter be lacking the former will be hard to secure.”² . . . “If we seek the origin of many faults of actual children and boys we find two sources. One is a complete neglect of the development of certain phases of true human life; the other is an arbitrary interference with the natural orderly course of development, so that capacities originally good are distorted and turned into wrong channels.”³

Further, early training is important because time ill-spent in the first years of life can never be fully recovered: “Our own hearts and our whole experience assure us that at the most a very small part of what was lost in early years can ever be ours.”⁴

(vii). From the conception of the inherent harmony between the developing soul and certain external means of training follows the doctrine that the means as developed by Froebel are essential to true education. Of this he is profoundly convinced. The ‘Gifts’ and ‘Occupations’ are, therefore, an essential part of the system of education formulated by him—not accidental and variable accessories. To his mind they are the

¹ See pp. 194-195. ² See p. 66. ³ See p. 74. ⁴ See p. 168.

external means—and the only conceivable external means—by which apprehension of the unity of all things and continuity of spiritual development can be secured. So if these means have not been followed in early childhood he insists that they should be used in the later years of boyhood. “Some may grant that our plans are good for little children, but reject them for their own sons on the ground that they are too old. . . . In many cases, doubtless, boys are somewhat old for what they yet ought to learn. But are they to be deprived of this training throughout their whole lives just because we neglected to give it them in childhood and early boyhood?”¹

This necessary character of the gifts and occupations is grounded in their harmony with the stages of development of the soul. The ball is “the unifying centre and representative of all the child seeks as complementary to the impulses of his nature towards development. For in it he finds at once exclusiveness and a general representation of all things, rest and motion, generality and particularity, all-sidedness and singleness of surface, visibility and invisibility. . . . Thus the ball is at once a means of representing outwardly his inner life, and of bringing into that life by imitation the external world.”² . . . “The ball is as important to the emotional and moral side of the child’s nature as to the intellectual side. It is a kind of talisman or moral safe-guard.”³ . . . “So we see that this first plaything of the child leads him in harmonious development towards the useful, the beautiful, and the true.”⁴

Similarly, in speaking of the transition from the soft ball to the hard globe, Froebel says: “It is clear that this progressive presentation of playthings is in so many ways in accordance with nature that it gives the true means

¹ See p. 168. ² See pp. 172-173. ³ See p. 175. ⁴ See p. 179.

of development. It is equally clear—and, indeed, is expressed in the phrase ‘in accordance with nature’—that the progression is not arbitrary, but necessarily determined, as it includes both likeness and contrariety, both progress and constancy. The globe, then, is the second companion plaything with the soft ball.”¹

Again, “The cube is necessarily the child’s third plaything. . . . The globe and the cube in their contrasted similarity should be inseparably connected in play. They are related as are unity in concord to unity in diversity, or as feeling to thought.”² . . . “In choosing these three early, and almost first playthings, we reach the same results by following strictly, on the one hand the requirements of thought and the development of the idea of thinking, and on the other the requirements of the free life of the child.”³

In discussing the third play he makes similar claims. “It is plain that the first divided plaything, insignificant as at first sight it appears, responds to the high requirements both of the development of man and of knowledge of nature, and hence, by cultivating both harmoniously, leads to the true knowledge of God.”⁴

In connexion with the fourth play he writes: “Observe the simplicity and certainty with which the way of education we have accepted as true is followed, and how adequately it meets the requirements of human development. One of its first principles is that each gift should implicitly contain the next, so that this has only to make explicit what has already been perceived, and to draw attention to it. No new means of education must require from the child anything that is not founded upon, or indicated by, that which precedes it.”⁵

¹ See pp. 181-182. ² See pp. 183-184. ³ See pp. 189-190.

⁴ See p. 197.

⁵ See p. 202.

In reviewing the gifts he tells us that "The gifts . . . are founded equally upon the nature of the child and the essential qualities of the playthings. They have their root in the fact that through his body, which is material and corporeal, the child as a spiritual being is related to the world of things."¹

Equally necessary are the occupations. "Like all the other playthings and plays that enter into these occupations, sticks and games with them are not introduced arbitrarily. This play grows necessarily out of its predecessors just at the right time, when the child has reached the age at which he has developed strength and skill not only to amuse himself with it but really to occupy himself with it intelligently and, therefore, educatively."²

These passages—and they are typical of many others—make it quite evident that to Froebel the series of gifts and occupations which he designed was not merely one amongst many possible means of training, but was the one true and necessary means. It is, then, an essential part of the system of education which he gave the world. Some of his present-day followers, however, though fervent in calling themselves his disciples, are ready to substitute other means of training for the master's gifts and occupations. Experience, indeed, has shown that some of the occupations are unsuited to the child's stage of physical development, calling for too early an exercise of the smaller muscles, and imposing an undue strain on the eyes. But it is not only on this empirical ground, but because the mystic symbolism of Froebel is ignored, that it is felt that the succession of gifts and occupations is artificial and, at the best, unimportant.

This, however, is to ignore the part of Froebel's teaching which is most peculiar to himself. Just as many modern

¹ See p. 213.

² See p. 218.

Herbartians call themselves after the name of their master simply because they believe in interest and connectedness in instruction, though they reject the whole of the psychology and philosophy which give coherence to his doctrines on education, so many thoughtful modern Froebellians are faithful to the great principle of self-directed activity, but to little else in their master's system. Certainly it is good that what is mistaken and accidental in a great man's work should drop away and only the living truth remain. But in neither of these cases was the living truth originally enunciated by the master, and the use of the name is, consequently, apt to be misleading, as it suggests an adherence to the system as a whole, and especially in the features which most clearly distinguish it from others.

Modern Froebellians, in any case, are beginning to lose faith in these distinctive peculiarities of Froebel, and so tend to treat his gifts and occupations as unessential. For example, one of the most distinguished of them, Miss Brown Smith, contributes an introductory chapter to *Education by Life*, in which she makes "an attempt to set out, in summary, the most universally accepted of Froebel's principles, and to examine the nature of our acceptance of them, in the practice of to-day."¹ In this chapter she writes: "It is difficult to estimate the value to us of his practice or application of principle. On the one hand it is strained and often very far from reaching the children for whom it was intended—as, for example, the scheme of Gifts and Occupations with all their bye-laws: and on the other hand without this application we should not have had the strong confidence in his work, nor should we have been so conscious of the spirit in which his work was done. By means of a

¹ P. 3.

material medium he has been able to inspire his followers much more effectively than if he had simply written the *Education of Man*—and yet between the education of man and the Kindergarten system there is a great gulf.”¹

In a similar spirit Miss Murray, another distinguished and ardent disciple of Froebel, writes an article in *Child Life*² to show “that symmetrical paper-folding and symmetrical work with the gifts are a waste of time for both students and children.” She believes that much modern Froebellian practice is on the wrong lines: “It truly seems to me that we have kept the least important—that we ‘have paid the tithe of mint and anise and cumin, but have neglected the weightier matters of the law.’” . . . “What did Froebel himself give us as ‘the great purpose of productive activity’? Surely it is the expressing or embodying an idea in the worker’s mind. Can any one affirm that either symmetrical paper-folding or symmetrical work with the gifts expresses the ideas of a child?”

Froebel did think so, and affirmed it with no uncertain voice, and Froebel himself had no suspicion that there was a gulf between the *Education of Human Nature* and the kindergarten system. The gifts and occupations were to him the means of realizing the principles laid down in the theoretical work, and they and the whole kindergarten system he believed to follow inevitably from the principles. To him they are the essential means of establishing the unity of man with all things; they form a continually developing series arising out of the subjective needs of the child; they evoke and direct purpose in the child, discipline him, and bring about in him a permanent development of his soul in harmony with his surroundings. Rejection of the means implies, therefore, rejection of

¹ Pp. 2-3.

² See number for January, 1903, pp. 14-18.

principles which Froebel regarded as essential and fundamental.

It is true that the *Education of Human Nature* was never finished, and that what was there written referred to the early stages of childhood. In his plan for an Institute of Popular Education at Helba in 1829—which was, however, never realized—Froebel sketched a series of practical occupations which, in addition to the folding of paper and the cutting-out of geometrical forms, included the making in cardboard of various useful articles, such as boxes, napkin-rings, card baskets, lamp-shades; models of familiar objects, such as boats, windmills, and water-wheels, in wood; chains and baskets in wire; and modelling in clay. Here his modern followers find the master's authority for the substitution of much sound and valuable manual work for the gifts and occupations. Practically the result is a happy one, for such forms of doing are the outcome of a deeper and more exact insight into the nature of childhood, and are of greater educative value than those set forth by Froebel. But Froebel by no means intended such forms of expression as substitutes for his kindergarten gifts and occupations, but as additions to them, suitable to the later years of boyhood. It remains certain that the gifts and occupations were his mature and carefully elaborated application of his principles, and that rejection of them implies rejection of much which he regarded as essential.

On examination, that which is rejected is seen to be the outcome of that vague pantheistic idealism which he himself regarded as the key-stone of the arch, as the great and vital truth he had to teach humanity. That was the philosophy which inspired his thought and determined the form of his practical work. But that philosophy is no longer a living force. The world has outgrown

it. And in outgrowing it, it has outgrown those aspects of Froebel's doctrine which are derived from it. To adhere to them now is but a form of that clinging to tradition which has so constantly in the past put schools out of touch with the needs of real life and the currents of real thought. To insist that Froebel has said the last word on education is to try to stop that continuous spiritual growth on which he himself was never tired of insisting.

Froebel, with all his single-hearted devotion, yet, obsessed by his nebulous and misleading philosophy, to some extent diverted the course of educational progress from the channel Pestalozzi had marked out for it. The cry has now been raised "Return to Pestalozzi," as in philosophy we have been exhorted to return to Kant—not to find rest in a perfected system of thought or practice, but to make a fresh departure in the light of the experience the last century has given us. But an important part of that experience is the thought and work of Froebel himself. What is vital in that must be taken up vitally; absorbed into our present-day life, adapted to our present-day needs. To make it a cut-and-dried complete system is inevitably to condemn it to the sterility of mechanism.

What, then, is of this permanent value? Undoubtedly, in the first place, the conception that education must evoke worthy purposes and facilitate their fulfilment. And, in the second place, that education must work largely through bodily activities, in which the purposes of the child are mainly centred or with which they are closely connected, and that the younger the child the more emphatically is this true. Neither of these principles was hidden from mankind till Froebel enunciated it. Of the fundamental doctrines of education the

epigram holds that "what is new is not true, and what is true is not new." Like other prophets Froebel preached the truth as he saw it. That he should win general attention to it was much more important than that he should discover it.

But, as with most other prophets so with Froebel, the valuable and true in the message was not without alloy. His ideas of unity, connectedness, and development were shadows of a vague pantheism and led him to an allegorical and symbolical treatment in which clear meaning dissolves into a fog of words. The child is supposed to breathe unconsciously the pantheistic idealism of Froebel's thought, if only the gifts and occupations are faithfully used. So the system stands complete in his mind.

That there was here a danger to progress has been made manifest in what it would not be too strong an expression to call the idolatry of Froebel. We have heard "the Gospel of Froebel" preached as if it embodied not merely one phase of the best thought on education of the early nineteenth century, but the absolutely best and wisest thought possible to man. This position cannot be permanently maintained in the light of developing thought and experience. Froebel must take his place in the long line of great teachers and preachers, who all taught a mixture of truth and error. The greatest tribute we can pay them is to test their work, and, while rejecting that which is evil, hold fast to that which is good. That is the spirit of true discipleship. This only sane attitude towards all teachings on education is well expressed by Pestalozzi in the closing words of his *Schwanengesang*: "Prove all things; hold fast to that which is good, and if anything better has ripened in you add it to that which, in truth and love, I have attempted

to give you in these pages. Add it in truth and love, and at least do not cast aside the whole of my life's endeavour as something which, as already discarded, requires no further examination. In truth it is not discarded, and surely it does deserve an earnest examination, and that not merely for my sake or to fulfil my request." Unless the teaching of Froebel, of Herbart, or of any other great thinker on education be thus regarded as suggestive but not final, it can but become a bar to progress and a cause of arrested development.

PART I
THE EDUCATION OF HUMAN NATURE

CHAPTER I

GENERAL THEORY

AN eternal law pervades and governs all things. The basis of this all-controlling law is an all-pervading, living, self-conscious and therefore eternal Unity. This Unity is God. God is the source of all things. Each thing exists only because the divine spirit lives in it and this divine spirit is its essence. The destiny of every thing is to reveal its essence, that is, the divine spirit dwelling in it. It is the special function of man as an intelligent and rational being to realize his essence fully and clearly, to exercise, practise, and reveal the divine spirit in him, freely and consciously in his own life.

The Theory of Education is the body of doctrine derived by thoughtful men from insight into this law, as a guidance in the apprehension and attainment of man's true calling.

The Art of Education is the free application of this knowledge and insight to the development of rational beings and their training towards the fulfilment of their destiny.

The Purpose of Education is the realization of a faithful, pure, inviolate, and therefore holy, life.

Education, then, must develop the divine spirit in man

and make him conscious of it, so that his life may become a free expression of that spirit. Education, in other words, should lead man to a clear knowledge of himself, to peace with nature, to unity with God.

The divine essence of things is recognized by its manifestations. But although all education, all instruction, all teaching, all free life, attaches itself to these manifestations of men and things, and through them acts upon the inner spirit, yet education must not draw conclusions concerning the spirit directly from the manifestations. The nature of things is such that in some ways inferences should be drawn negatively.

Failure in applying this truth—that is drawing conclusions concerning the essence directly from its manifestations—is the chief reason for the many mistakes of life and education. Hence it is of the utmost importance that parents and teachers should familiarize themselves with the application of it in its smallest details. This would secure a clearness, certainty, and serenity, in the relations between parents and children, pupils and teachers, which are now sought in vain. For the child who outwardly appears to be good is often not good inwardly; that is, he does not desire the good deliberately, nor from love, esteem, and recognition, of it. On the other hand, the churlish, stubborn, self-willed, child, who outwardly appears to be naughty, has frequently within himself the most active, eager and vigorous desire for the good; while the absent-minded boy is often following a fixed thought which makes him disregard everything around him.

Hence the fundamental principles of education, instruction, and teaching, should be passive and protective, not directive and interfering.

We give room and time to young plants and animals,

well knowing that then they will develop and grow according to the laws inherent in them. We do not interfere, because we know that this would disturb their healthy development. But the young child is treated as wax or clay which can be moulded into any form. Why does man, wandering through gardens and fields, meadows and groves, fail to open his mind, and refuse to listen to the lesson which nature silently teaches? See how the weed, growing amid obstacles and restraints, scarcely gives a hint that it obeys an inner law. Then look at it growing in the open field, and see what conformity to law it shows, what harmonious life in all its parts. So children who appear sickly and constrained because their parents have forced upon them in their tender years a form and calling opposed to their nature, might under natural conditions develop with beauty, uniformity, and harmony.

In dealing with objects of nature we often follow the right road, but go astray when we deal with men. And yet, forces are at work in both which have sprung from one source, and which obey the same law. Hence it is important that man should consider nature also from this point of view.

It is true that nature rarely shows us its original purity intact in man. Therefore we must presuppose it in individuals until the contrary is clearly manifest. Otherwise, the original state where it might still be found intact might easily be destroyed. But if the inner spirit and its outward manifestations show unmistakably that the original state has been injured, then a strictly directive education is required.

But it cannot always be demonstrated with certainty that the inner spirit has been injured; at least it is difficult to discover the source and tendency of the injury. The final test of this is found in the man himself. Hence,

from this point of view again, education must be passive and protective rather than directive, otherwise the free and conscious revelation of the divine spirit in man—which is the free development of the human race—is lost. But this development is the final aim of all education and life, for it is the ultimate destiny of man.

It follows that purely directive education should not begin until self-consciousness is attained ; for only then is the essential nature of the individual evident. Hence, before the origin and kind of the defect of the primitive healthy nature in any pupil become manifest, all that can be done is to place him in an environment so adapted to him that it will make clear both to himself and to others the consequences of his actions, and at the same time afford the fewest opportunities for the exercise of his evil tendencies.

Nevertheless, the eternal spiritual ideal speaks with absolute and relentless authority when he to whom it addresses itself either sees the reason of the command or accepts it with simple and childlike faith. In all good education, in all real instruction, all true teaching, then, necessity should evoke freedom, law should induce self-determination, external compulsion should develop internal free will, outer hatred should beget inner love. But all education, instruction, and teaching, fail whenever hatred gives birth to hatred, law to deceit and crime, compulsion to slavery ; when oppression degrades the oppressed, and severity leads to deceit and obstinacy. To avoid this, and to attain its opposite, all directive education must be adapted to the child's nature. This is attained when it expresses an immutable law and excludes all caprice. So all true education, teaching, and instruction, must always be two-sided. It must give and take, unite and divide, be directive and adaptable, active

and passive, definite and flexible, firm and yielding. So it is with the pupil.

But between teacher and pupil, between command and obedience, there must be a third term to which each must submit. This is the *Right*, the *Best* which necessarily, and yet without arbitrariness, inheres in the situation. The child sees very clearly whether the biddings of teacher or parent are personal and arbitrary, or are the expressions of necessary and universal law. In this neither child, boy, nor youth, easily errs.

Hence may be derived the general formula of instruction: Do this, and note the consequences of your act in this special case and the knowledge you thus attain. Similarly the general rule of life may be thus formulated: Show forth your spiritual essence in your outward acts, and in this way learn the nature and needs of that inner essence.

Herein we find both the reason of the following demand and the mode in which it can be met. The educator should make plain the universal relations involved in particular acts and the mode in which universal laws find expression in particular deeds, and should illustrate both from life. The external acts should reveal the workings of the internal spirit, and the spirit should disclose itself in outward conduct, while both should show an essential unity. The educator must look at the finite in the light of its infinite meaning, and understand infinite meaning through finite manifestations, while he must see in life the harmony of both. In a word, he must discern the divine element in man and find the essence of humanity in God, and seek to show how in life each element involves the other. The more man studies himself, both as individual man and in the course of human development, the more clearly and unmistakably does this inherence of man in God and God in man become manifest.

In these considerations we find the only true aim of education. So parents should from the first recognize in their child a manifestation of the divine spirit and membership of the human family, and consequently realize their responsibility to God and to humanity as well as to the child himself. Further, they should keep before their minds that the union of divine and human attributes in the child relates him to the whole human race—past, present and future; and should so order his education that the requirements of these relations may be satisfied.

Consequently, the form of man's life should not be regarded as perfect, and therefore fixed and unchangeable; but on the contrary as continuously and steadily advancing from one stage to another in an infinitely progressive development.

Certainly each race and each individual of necessity passes through all the stages already traversed. Were it not so, neither the past nor the present could be understood. But this passage should be made not by mere imitation but through free assimilation.

The true development of each child harmonizes the intellectual and emotional qualities which in his parents may be mere dormant possibilities which they do not even suspect to exist. So his development as a child of God shows the unity and harmony of God and nature, of the infinite and the finite. Again, his development as a member of the family exhibits the nature, capacities and tendencies of the family in purity and harmony. Lastly, his development as a member of the human race shows the nature, capacities, and tendencies, of the whole of humanity.

All these will be most completely secured if each individual develops as perfectly as possible on the lines indicated by his own individual nature. For then the

law of natural development which rules the whole universe is expressed in the particular form of his own personality. Then the life of man shows this unity of his nature with the nature of all things ; his individuality manifests the unity of his inner spirit with his outer acts ; the diversity of these acts exhibits the variety of his relations to the world. Only in this three-fold yet unified way can the inner nature clearly find expression. Whenever one is wanting, or is but imperfectly recognized, the expression is incomplete. The recognition and application of the three-fold aspect alone leads to real knowledge and true insight.

It follows that, from his very birth, this nature of the child should be recognized by allowing him freely to put forth all his activities. The exercise of one power should not hinder that of another. So he should not be fettered, bound, nor wrapped in swaddling clothes, nor, after a while, put into leading strings. He should early learn that he himself is the source of all his powers, and realizing this, use them freely—grasp with his hands, stand and walk on his feet, look and see with his eyes ; in short, use all his powers appropriately and harmoniously. Really to be master of one's powers is the most difficult of all arts, and one only to be learnt if it be practised from the first.

The child's very first activity is an exhibition of energy. But all energy is relative to some counter-energy. So the child puts forth energy in crying, in thrusting with his feet against everything which resists them, in grasping with his hands whatever they touch. Soon after, if not at the same time, his sympathy begins to develop. This finds expression in his smile and in his movements expressive of pleasure when he is surrounded by comfortable warmth, clear light, and fresh air. This is the beginning

of human consciousness. Thus the first manifestations of the child's human life are content and uneasiness, pleasure and pain, smiles and tears.

Content, pleasure, smiles, betoken whatever the child's consciousness accepts as suited to the unhindered development of his true human nature. To secure and foster these is, then, the first step in education. On the other hand, in the earliest days uneasiness, pain, tears, mark all that is inimical to that development. To discover and remove such hindrances is also the task of early education.

In these earliest days no stubborn self-will is shown by the child's crying, fretfulness, and restlessness. But so soon as the baby even dimly feels that his uneasiness or pain is due to the caprice, carelessness, or negligence, of another, such wilfulness is born. Exactly when that is, nor exactly how it comes about, we cannot say. But it is then that obstinacy begins to develop. And no fault is so fundamental or so evil as obstinacy. Both to the child and to his surroundings it is almost fatal. To the child, because it can hardly be uprooted without danger to the true strength of his nature ; to his surroundings, because from it spring deceit, lying, lawlessness, and many other repulsive vices.

Even when the right way is taken mistakes are easily made in following it. The true development of man's nature involves that by bearing small and trifling pains he gains the power of enduring even heavy and crushing sufferings and troubles. When, then, it is certain that the fretful, restless, and crying, baby has all he really needs and that nothing is present which can hurt him, it is well to leave him alone and give him time to grow calm again and to regain his normal state. For if once the little one has by crying extorted sympathy and help demanded by no real suffering, education has lost ground

which future compulsion will hardly regain. Still more so if this happen repeatedly. For even babies have a keen sense for the weaknesses of those around them ; and, if once opportunity be given, they will rather exert their innate living force in compelling the attendance of others than in bearing their own burdens or in doing anything to remove them.

At this stage the developing human being is most appropriately called a 'suckling,' for assimilation from without covers practically all his activities. His surroundings, in all their variety, are material for his activity. Infinitely important is it, then, that these should not give him occasion to absorb the unwholesome, the mean, the vulgar, the evil, or the doubtful. On the contrary, they should offer only that which is of good repute and apt to inspire confidence. So the faces about him should be open and bright, the air pure, the light clear, the room clean. For alas ! life itself is not long enough to change the trend given in those early years when the whole life was surrendered to influences from without. So it is that often man's hardest struggles are with the self which is rooted in these early experiences. Who then can question the importance of the educative care of the nursling ?

Mothers recognize the significance of the child's first smile, as showing not merely a consciousness of bodily individuality, but also the birth of a higher feeling of community. At first this binds the child only to the mother ; later to the father, the brothers, and the sisters. Ultimately it reaches out from the family in ever-widening circles till it relates the child to the whole of humanity.

As this feeling of family community is rooted in the higher unity of man with man in God it is the germ of all true religious feeling and of all yearning for unity with the

Eternal. This early and vague manifestation of the divine spirit in man should be fostered and nurtured till it matures into explicit apprehension.

If parents desire to give their children, as the highest good in life, a firm hold on this never-failing support, their union with those children must be both real and evident wherever in prayer—be it in the home or in the open fields—they acknowledge the common and unifying Fatherhood in God.

Let it not be said that the children do not grasp this unity; that is to deny their highest life. They both can and will; unless, indeed, by having already run wild they have become estranged not only from their parents but from their own true selves. They grasp it not in thought but in feeling. Religious feeling which does not grow up from the earliest years can hardly develop in maturity into a full and ardent union with God in all the circumstances of life.

Not in religious training only but in every aspect of training it is most important that the child's development be recognized as a steady evolution of stage from stage. Most disastrous is it to act on the opposite theory—to divide the very marrow of life by marking sharp contrasts and setting definite limits between stage and stage, and so losing sight of the ever-present identity of the inner essence in all the relations in life. In actual life the stages—infant, child, boy or girl, youth or maiden, man or woman, old man or matron—show an unbroken transition. Nowhere do they appear as separate and distinct. Most harmful is it to disregard this—to look upon the child or the boy as so wholly different from the youth or the man that their common human nature is acknowledged but dimly in thought or speech, and scarcely at all in act. Yet this is commonly done. The boy fails

to remember that he was once a child and that the child will in time be a boy ; similarly the youth ignores the bonds between himself and the boy. Worst of all, the grown man no longer finds in himself his own early stages of development, but speaks of the child, the boy, and the youth, as beings unlike himself in nature, capacities, and tendencies. This dividing up of life into contrasted stages is due to a lack of observation of one's own development, beginning in early years and ever becoming more precise. It originates more evils than can be enumerated.

Far otherwise would it be if parents looked for their child to pass through all the stages of development, omitting none ; especially if they bore in mind that the strong and perfect development of each successive stage is grounded in the vigour and completeness of all the preceding stages. Parents are all too apt to overlook this. They regard a child as surely a boy when once he has reached the age of boyhood, as of necessity a youth or man when he has attained those respective conventional ages. Not so. It is not the reaching a conventional age which makes him boy or youth or man, but the having so lived through childhood, and subsequently through boyhood and youth, that in each stage he has truly satisfied the needs of his whole being, whether they be intellectual, emotional, or physical.

The failure to recognize that the early stages of development are thus related to those which follow makes the task of the boy's later teachers and educators almost insuperably hard. Either a boy thus brought up fancies he can skip over all the instruction proper to an earlier stage, or he suffers if at too early an age something unsuited to his stage of development—such as preparation for a special future occupation—be placed before him as

a model or a purpose. The child, the boy, the man, should have no other purpose than to be at each stage just what that stage demands. Then, like a new shoot from a healthy bud, each stage will spring forth in its turn, and in each he will with like purpose and effort fulfil its requirements. Only thus, by adequate development in each preceding stage, can the adequate development of any of the later stages be secured.

This is particularly pertinent to the development of natural capacity for the production of material results, that is, for work and industry. The current ideas of work and industry are entirely false and deadening. They regard work as oppressive, degrading, and utterly devoid of life.

But God himself works always. Each thought of his is not merely a deed or a product ; it is essentially a living productive energy working out its results through all the ages.

The Spirit of God hovered over the shapeless void, and, by its transforming energy, stones, plants, animals, man, came to birth and began, each in its own way, to live its destined life. But " God created man in his own image " ; therefore man should work and produce as God does. *His* Spirit too, should stir the empty void and call it into life. This is the very essence of the meaning of work ; this the high purpose of productive energy. It is through work and industry that we realize our likeness to God, if only the outer bodily activity be known—or even vaguely felt—to be the outcome and embodiment of a living thought within seeking to find expression. Thus, little by little we come to a truer knowledge of God and understand his nature more clearly ; thus, both in outer act and in inner life, we feel him ever nearer to us.

The notion that man labours only to gain material

necessaries and comforts is degrading, and if it cannot be uprooted yet it should not be spread. It should be spurned by all who would see life truly. That man should work is, in truth, of his very essence ; by work he gives scope to the living divine spirit within him, and so enters into the knowledge that he himself is, in his very nature, akin to God. Compared with this spiritual function of work, that of earning a livelihood appears as unimportant and artificial.

But man's inner spirit can find full expression in outer acts only in a definite order of time. So that if at any period of life a person fail to use the power of work appropriate to that stage, he is bound later to find the higher form of that power lacking—a lack due solely to this early neglect. When this is found actually to be so in any particular case there is no means of repairing the mischief. The want must be recognized and endured. But let it be a warning to avoid such disaster in the future.

So it becomes plain that from earliest childhood the growing human being should be trained for productive activity. Both his spiritual and his bodily nature demand it ; and in this matter the fulfilment of the demands of the spirit necessarily carries with it the satisfaction of those of the body. In the awakening of the senses and the spontaneous activity of the limbs of the babe we see the earliest seeds of productive impulse ; in the play, building, and modelling, of early childhood the tender buds of promise ; then comes the period wherein the boy should be prepared for future industry and diligent work. Every child, boy, and youth, whatever his rank or condition, should spend at least one or two hours a day in some serious and definite productive work. For the lessons taught by work and by actual life are at once the most easily learnt and the most valu-

able and formative. Yet both children and adults now-a-days give much time and attention to aimless and frivolous pursuits ; little to purposive work. They dislike bodily work in the present, and believe they will not need it in the future. To change this attitude is the difficult but bounden duty of every educational institution. The present-day training of children, both in home and in school, cultivates at once bodily laziness and mental indolence, and so wastes a vast amount of potential human energy. So schools would do well to provide work-hours as well as study-hours. Surely in time this will be realized and acted upon.

This early training in industry is as important as is early training in religion, and is related to it. For when it is carried out in harmony with its vital inner meaning it confirms and elevates religion. Religion which inspires no productive effort easily passes into empty formalism ; it becomes a mere ghost of the reality. On the other hand, work devoid of religion degrades man into a beast of burden, a machine. Work and religion must go hand in hand ; for God works ever and always.

But as human energy develops, it should not show itself only in the inner and confident restfulness of religion or in the outer productiveness of work. It should also be directed upon itself, and in itself find strength to bear and to endure. So shall it manifest itself in self-control, in temperance, in frugality. Wherever religion, industry, self-control—one as they are in their essence—harmoniously rule the life, there is heaven upon earth—peace, joy, sound-mindedness, grace, and blessedness.

To sum up : man is in the child ; the unity of humanity is inherent in childhood ; so it follows that all that the man shall ever be or do exists in germ in him as an infant. So if we would train him aright, so as to develop both his

individuality and his common human nature, we must from the first see him both as a particular human being and as in essential relations to his surroundings. But the unity of his inner life finds many and diverse manifestations, which appear successively in time. So it is in diverse particular experiences that the child learns to know both the world as related to himself and his own inner life as related to the world. Hence it follows that his powers and tendencies, the activities of his senses and limbs, should be developed in order, each as it appears in his life.

CHAPTER II

THE STAGE OF INFANCY

IN itself the world does not change. It is always the same system of distinct, though related, things. But not thus does it become known to man. To the babe there are no distinct things. He does not even distinguish himself from the objects around. All is without form and void—a mere confusion of vague impressions. Among this chaotic mass are words often repeated by the parents in connexion with things frequently present. So, little by little, words and things become associated, and the separateness of the former gives a kind of independence to the latter. Singly and rarely at first, afterwards more frequently and in various relations, the objects of the world thus become known.

Slowly also does the child gather that the objects which fill his consciousness are not himself, though they are related to himself; till at last he realizes himself as a definite existing thing separate from all other things.

Thus it is that the development of the conscious experience of each child, from the moment of his first appearance on earth till he finds himself at home in nature—the very garden of God—repeats the essential stages of the history of the world as unfolded in Holy Writ. In later years, too, each child of necessity repeats the act which marked the birth of reason in mankind.

Every one who wills it can see this development in him-

self. But he can do so only if he always regard both his own life and the lives of others as continuously evolving from stage to stage in harmony with divine law.

We found that the general formula of human life is that outer act truly expresses inner striving. Each external object challenges man to learn its nature and its relations. That the challenge may be successfully accepted man is endowed with various organs of sense. But each thing and being is known only when it is compared with its opposite, and the common nature which unites them is laid bare. The more explicitly the contrast is seen and the meditating common nature apprehended, the more perfect is the knowledge.

The development of the senses is accompanied by growing control over body and limbs. This also follows a definite order, determined on the one hand by the child's physical nature and on the other by the qualities of the objects with which he comes in contact. When these objects are near and still they suggest rest, when moving away they prompt to seizing and holding, when fixed at a distance they invite him who would have them nearer to move towards them. Thus is developed the use of the limbs for sitting and lying down, for grasping and holding, for walking and running.

In the stage of infancy the young life is filled wholly with the use of body, senses, and limbs. No further results are sought; use and exercise are in themselves sufficient. The babe begins to move his limbs in play—his hands, his fingers, his lips, his tongue, his feet—as well as his eyes and his face. These earliest playful movements are not expressive of mental activities. That only comes later. Nevertheless, they should be watched carefully lest the child acquire meaningless habits of movement, and especially of facial gesture. For this means a separa-

tion between feelings and modes of expression which may later lead to deceit. Even when this is not the case such modes of expression harden into involuntary habits which throughout life mask the inner feelings.

To avoid this, babies should not be left too long in bed or cradle with no external object to invite their activity ; for that leads through bodily flabbiness to mental feebleness. As a precaution against the former, the bed should not be too soft and the coverings should be sufficiently light to admit the fresh air freely. To guard against the latter, it is well to hang a cage containing a merry bird where the child can easily see it, thus providing profitable and varied occupation both for senses and for mind.

CHAPTER III

THE STAGE OF CHILDHOOD

THE stage of infancy passes into that of childhood when mastery over the activities of senses, body, and limbs, is so far developed that they begin to express mental activities. Hitherto the various aspects of mental life have been merged in an undifferentiated whole of being. With the acquirement of language begins the differentiation and organization of this vague sentience. The child learns to use the concrete facts about him as means to the attainment of the ends given by his own inner life.

It is, then, with childhood that real education begins. At this time the mind demands more care and attention than does the body, and education belongs wholly to the mother, the father, and the family, with whom the child still forms a natural and unbroken unity.

So this first stage of childhood is of the greatest importance, because in it the child first begins to comprehend the nature of his surroundings. / It matters much whether this outer world appear to him as noble or as ignoble ; whether as a mere instrument of selfish gratification or as having a high and spiritual function ; whether as pure or as impure ; whether as ennobling or as debasing—in a word whether he grasp its true nature or see all in false and distorted relations.

The child should first perceive and then name everything clearly and correctly, and should learn to specify

accurately the relations of space and time in which things stand to each other. And in all this, every word should be clearly and distinctly spoken. That he may so perceive and name, everything should be presented to him rightly and clearly.

When he is at play a child talks continuously, thus indicating that with him talking is not yet distinguished from himself as talker, nor names from the things named. Play and speech are the elements in which the child now lives. So he attributes the same life to all about him. The pebble, the chip of wood, the plant, the flower, the animal—each and all can hear and feel and speak.

Thus in childhood there is a four-fold development of life—the child's own inner life; his life in relation with parents and family; his life in relation, common to him and them, with a higher invisible Being; and, especially, his life in relation with nature, regarded as endowed with life like his own.

Consequently, parents and family should regard contact with nature as one of the chief moving forces of the life of the child, and should make it as full and rich as possible. And the best means is play, for at first play is the child's natural life.

Play, then, is the highest expression of human development in childhood, for it alone is the free expression of what is in the child's soul. It is the purest and most spiritual product of the child, and at the same time it is a type and copy of human life at all stages and in all relations. So it induces joy, freedom, contentment, inner and outer repose, peace with all the world. From it flows all good. A child who plays vigorously, freely, and quietly, and who persists till he is thoroughly tired, will of a certainty grow into a capable and quietly persistent man, ready to sacrifice his own present ease when

a higher good for himself or for others demands it. Can childhood ever show more beautiful than in a child so absorbed in play that sleep has overcome him unawares ?

Childhood's play is not mere sport ; it is full of meaning and of serious import. Cherish and encourage it, then, O parents ! For to one who has insight into human nature, the trend of the whole future life of the child is revealed in his freely chosen play.

In these early years the child's food is of special moment. Through its diet a child may be made indolent or active, dull or bright, inert or full of initiative. And these qualities thus cultivated may persist throughout life, for such proclivities are not easily changed, even when the age of deliberate choice is reached. By then they have so grown into the physical life that they are inextricably woven into the life of sensation and feeling, and are thus closely connected with the higher spiritual life.

Let the child's food, then, be strictly the means of nourishment, with the one object of securing activity of body and mind. Never allow food, or the quality, flavour, or delicacy of food, to become ends to be sought for their own sakes. See, then, that every child's food be as simple and plain as his circumstances permit, and that the amount given him be proportioned to his bodily and mental activity.

That the young child may freely move about and play, and so develop without hindrance both physically and mentally, his clothes must not be tight and cramping, for such garments fetter mind as well as body. Neither clothes nor their colour or cut should ever in themselves be made the object of desire ; to do that is to fix the child's thoughts on his appearance rather than on his real life, and so to make him vain and frivolous—a doll instead of a child, a puppet instead of a human being. Dress, then,

is not a matter of indifference—a mere external thing—either for child or adult.

The essential aim of the care of parents in home and family is, then, to awaken and to cultivate every innate capacity of their child, and to develop every one of his bodily limbs and organs so that they become fitted to carry out the behests of his soul. The true mother does all this instinctively and without instruction. But it is not enough to do it; it is further needful that she should do it with a clear perception that she is training a being continually growing into consciousness, so that she may do her part consistently and with a clear apprehension of the form which the development of life normally takes.

To help her thus to realize the significance of her work, and its relation to the whole life of the child is the object of the following remarks.

Pleasantly and playfully she helps the child to distinguish his limbs and the members of his body which he cannot see, and to learn their use. “Show me your tongue.” “Put your foot into your shoe.” “Bite this with your teeth.” In such ways does the loving instinct of the mother gradually lead the child to consciousness of his little bodily world.

Similarly, from mere recognition of things and their relative positions, she soon draws his attention to their qualities. These she shows first in their active form. “The candle burns,” she says, as she cautiously draws the child’s finger towards the flame, or “The soup burns your mouth.” Later she says: “The soup is hot; it burns you.” Thus from experience of the effect, she leads to recognition of the cause as a permanent quality of the thing.

Still later she leads the child first to feel his own actions and then to learn the purpose of each. To draw

his attention to the scent of a flower she sniffs, and says: "How lovely it smells, would you like to smell it?"

Then she shows him objects in motion. "Hark! the bird sings!" "The dog says 'bow-wow!'" And to fix his attention on motion alone she points to anything swinging, such as a pendulum, and says "swing-swong," "to-fro." Similarly she teaches him the changeability of things. Showing him a lighted candle, she says, "Look at the light;" then blowing it out—"All gone!" She incites him to bodily activity—"Catch the ball"; "Hold the flower." She awakens and gives point to his vague feeling of community with the family when she says as she passes his hand caressingly over the cheek of father or sister "Dear papa!" or "Love little sister!"

Through movements also she seeks to make him feel his own inner life. Here the manner is of great importance. By regular rhythmic movements accompanied by rhythmic sounds she leads him to this self-consciousness as she dandles him in her arms.

Thus the simple natural mother carefully follows the slow but complete development of her child's life. She instinctively tries to incite all his limbs and senses to full activity, and so she stimulates to ever-increasing activity the yet richer inner life, and by such activity develops it.

But with those who regard the child's soul as empty and needing to be filled with life from without, rhythmic rocking leads to nothing, because it is not developed into a later and wider training. Naturally it should lead to a sense of rhythm and obedience to law in all later experiences. Thus its early discontinuance robs the child of power to tread the true measure of his life. By its

development he would gain confidence, harmony and moderation, as well as a greater capacity to enjoy nature, music, poetry, and art.

Quite young children in quiet moments croon little songs to themselves, especially when they are dropping off to sleep. This, too, the observant mother has noticed. But more heed should be given to it, as the first germ of a sense of melody and the power of song. Then song would develop as spontaneously as speech, in which a child of his own accord will invent new words to express new-found ideas.

A child should learn to stand and to walk without artificial aids and supports. When he has strength to hold himself upright of his own accord, he should stand ; when he can keep his balance while freely moving forwards by himself, he should walk. He should not stand till he has first learnt to sit upright and then to draw himself up by means of some neighbouring object of sufficient height, thus gradually mastering the art of keeping his balance. Nor should he walk till he has first learnt to crawl, to get up without help, and to keep his balance. At first the mother's lap will invite him when he has thus raised himself at some little distance from her, and he will launch himself towards her. But soon he feels his power in his own feet and then he finds joy in walking as hitherto he has found it in standing. Yet again after a little while he walks automatically and without strain or effort. Then a bright, round, shining pebble, a fluttering piece of coloured paper, an unusually brilliant leaf, and such like things, attract him. To get hold of these and make them his own is now an object to be attained by his newly-acquired art. These he gathers, like to like ; these he separates unlike from unlike. Nor is he wrong. He is gathering and sorting materials for building his own life. For in

life, like things must be held together, and unlike things must be held apart.

If that building is to be secure, all the materials used must be known not only by their names but also in their qualities and uses. That the child instinctively feels this is shown by his persistent activity in dealing with them. We fail to see the real purpose of this activity, and so disregard it as childish, and are unable to make it clear to the child when he instinctively turns to us for help. To him the smallest trifle is a discovery. But if it is lifeless it darkens his outlook and lies, a dead weight of oppression, on his little world. So he wants to know its nature and its properties, and to discover why it wins his liking. Hence he turns it about, tears or breaks it to pieces, puts it in his mouth and bites it, or tries to bite it. We scold him for being silly and naughty; but is he not wiser than we? He would learn the object's real nature, impelled by an instinct which wisely guided would lead him to seek God in all his works. True, the broken object is dumb. Yet it shows in its fragments like and unlike pieces, as in a broken stone or a torn flower. Thus it increases knowledge; nor is there any other way in which knowledge grows in adult life. Yet we overlook this hidden purpose and value of the child's activity till the teacher at his desk does these very things and asks our children to do them. Here we see why the clearest teaching so often fails.

The pupils are asked to learn now in school what they ought to have learnt in childhood, and could then have learnt without effort had we but given them the aid of the stimulating explanations they needed. It is little trouble for those about a child to give him what he wants; just to name—to put into words what he does or sees, or finds. The life of the child ripening to boyhood is

indeed rich, but we see it not ; it is full and real, but we perceive it not ; it is in accord with the future claims of his manhood, but we suspect it not. Not only do we fail to guard and cherish the inner germ of the boy's life, but we allow it to be crushed and stifled under the burden of its own endeavours, or to find vent at some weak place in unnatural inclinations and impulses. Then we would gladly direct the energies otherwise, but it is too late.

A child finds a piece of chalk or rubble. He tries its nature by rubbing it on a board, and finds that it makes coloured marks. Delighted with this new discovery, he soon covers the whole surface of the board. Soon his delight extends from the colour to the shapes of the lines he has made—straight, winding, and curved. Attention to these leads him to notice the outlines of surrounding objects. The head is seen as a circle ; then a circular line is drawn to represent the head, and a lengthened circle joined on to it to represent the body ; arms and legs are seen as lines, straight or broken, and by such lines are represented ; and so on. Thus a new world both of things and of ideas opens to him. For man understands just as far as he tries to do or to represent.

But not in this direction alone is a new world opened by the perception and drawing of lines. Knowledge of the new and invisible world of forces also has here its most tender roots. The ball that has been set rolling, the stone that is flung and then falls, the water that has been dammed and now runs along many little channels—all teach the child that every putting forth of force leads to movement in some line. Thus the drawing of objects leads him to perceive and to represent by a line the direction in which a force acts. "Here runs a brook," he cries, and draws a line to mark its course. Very

suggestive is it when he says "Here comes a bird flying" and draws a line to show the direction of the flight.

Give the child, then, a piece of chalk, and a new world soon appears before him and you. And if the father in a few lines sketch a man or a horse, the drawing will delight the child more than would a real man or a real horse.

If a mother would guide her child in this, she must learn how to do it by observing him. She will see him first trace out the outline of table or chair by passing his fingers along its edges, drawing, as it were, the object on itself, and so most surely making himself conscious of its form. Soon he takes the next step. He draws diagonals across four-sided objects—such as tables, benches, seats of chairs—vaguely imagining that this is the way to remember their form or to preserve their spatial relations. Next, he draws on a smaller scale the forms of objects too large to be moved. But small movable objects—such as scissors and boxes, and later on twigs and leaves—he lays on a board and draws by tracing round their outlines. By such activities the child profits more than can be said. He gains clear ideas of form, the power of representing it apart from objects, the memory of form itself; and in doing so he strengthens and practises arm and hand.

Although she has never drawn, a helpful mother can lead her child to draw with fair accuracy straight lines—horizontal, diagonal, and vertical—and objects bounded by them.

But it is not only helpful but necessary that word should be connected with action. "Now, I draw the table, and now its diagonal." Speech and drawing help and complete each other. The drawing stands between name and object, and has something in common with each.

The drawing is like the word in that though it has the same form as the object, it is never the object itself, but only an image of it. But word and drawing differ in that the former is alive, the latter dead ; the former must be heard, the latter seen. Word and drawing are, therefore, connected like light and shade, day and night, soul and body. It follows that the capacity to draw is as innate as is the power to speak. Indeed, this is proved by the child's instinctive tendency to draw and the pleasure he shows in drawing.

The drawing of objects leads to the discovery of number. For in representing objects certain numerical associations—such as two eyes and two arms, five fingers, etc.—are constant and are soon recognized. Thus the repeated return of the same object leads to counting. So the child's world is again enlarged, and the vague longing to make definite his recognition of different quantities begins to be satisfied. Before, he could distinguish greater and less ; now, he knows he has two large and three small stones, four white and four yellow flowers, and so on. This knowledge of relations of number adds much to his life. But it must be cultivated in accordance with the nature both of number and of thought. Observation of the child will show how he instinctively follows the path marked out by the laws of human thought, which passes from the visible to the invisible and more abstract.

At first he puts together similar objects—apples, nuts, beans, etc. The mother should name them, and thus, by conjoining hearing with sight, make the word more real to him. Often the child places the various kinds of objects, each in a separate row. Again the mother should add the illuminating word—*all* apples, etc., and let the child repeat it with her. Later, as the child puts the objects together, let her clearly describe what he is

doing, both together saying : “ One apple, another apple, yet another apple, . . . many apples,” etc. Later she replaces the indefinite terms of quantity by the definite numerals, the child counting aloud with her. Then *she* arranges the objects and counts them, afterwards repeating the counting with the child. Lastly, *he* both arranges and counts them by himself.

After this is accomplished, let the numbers only be named till the total is completed—“ one . . . two . . . three . . . four apples.” This makes the numbers themselves prominent, and relegates the kind of object to the background. Finally, the kind of object is ignored altogether, and only the numbers are named. Here is reached the abstract consideration of the successive numerical groups ; that is, the perception of numbers as mere numbers.

In this way a clear and effective knowledge of numbers, at least up to ten, should be secured in childhood. Never should the names of the numbers be given to the child as dead and meaningless sounds, and so repeated by him mechanically. For a long time he should name the numbers only in connexion with objects he actually counts.

This analysis of the process by which the child reaches the idea of abstract number illustrates the general way in which he passes from the perception of particular things to general and abstract ideas, though in practice the transition is often made suddenly.

When a child has been rightly cared for and guided, what a wealth and vigour of life, both outer and inner, does he present as he approaches boyhood ! Everything which he will feel or think or learn as a man there has its roots. Language and nature lie open before him. The properties of number, form, and magnitude, the nature of forces, the effects of various substances, are becoming clear to him. Colour, rhythm, tone, and shape—each is begin-

ning to have its special meaning for him. He has begun to distinguish clearly between the natural and the artificial, and definitely to mark himself off from the world around him. So the feeling that his own life is a kind of inner world has arisen.

But as yet we have not considered one important part of the child's life—his imitation of father and mother, brother and sister, in their domestic and business or professional activities.

A two-year old child of a carter accompanies his father and holds the horse's reins with him, firmly convinced that *he* leads the horse, and that it must obey him. A gardener's little son wishes to help his father to pull up weeds, and the father shows him how to distinguish plants by colour and scent. Another child sees his father hammering hot iron, and learns from him that the iron has been softened by the heat; or again, when he sees his father vainly attempt to push the heated bar through a hole into which it entered easily when cold he learns that the heat has expanded the iron.

The value for the child's development of thus joining in the parent's work is incalculable, and it would be yet greater did parents recognize it and make better use of such opportunities. Every craft and occupation gives a starting-point for human knowledge, which afterwards school with its formal instruction either cannot give at all, or gives with much difficulty and at great cost.

Let the parent, then, not repel his child nor be impatient with his many questions. Yet let him tell only what the child cannot discover without being told. Certainly it is easier for the child to be told the answer to his question, even though he only half understands it, than it is for him to seek and to find the answer for himself. But to seek and to find even a quarter of the answer by

his own efforts is of more worth to him than to receive and grasp half of it from the words of another ; for that encourages mental indolence. So let the father not answer his child's questions straight off, but, as his strength and experience allow, show him the means of finding the answer for himself.

Let all parents—and especially fathers who are most directly charged with the training of the child just merging into boyhood—consider how great a joy attends the due performance of their paternal duties. The father who has clearly realized this would sum up his rule of training in the words : “ The first and most important point in the education of children is to lead them early to think.” That they should in early years begin to be active and to work would seem to him too self-evident to need statement. Moreover, the child who learns to think will through that be drawn to diligent activity, and so towards the fulfilment of all domestic and civic duties.

But what is the actual state of things ? It is a hard saying, but examination of our intercourse with our children will show it to be a true one, that our dealing with them is dull and dead. Despite our knowledge, our speech to them is almost wholly devoid of meaning and of life. Only in the few instances in which it tells of actual intercourse with nature and life is it itself alive.

But in social intercourse it has no living force ; our words are husks without kernel, marionettes without life, counters without value.

Our surroundings are equally dead and deadening. Things are to us merely so much matter. So they do not raise but oppress us, for the life-giving word which alone could fill them with significance is wanting.

Our speech is void of living meaning because it so

largely consists of ready-made formulas repeated by rote, and growing out of neither true perception nor productive effort. It cannot give life, for it does not come forth from life. It is like the book from which we learnt it at third or fourth hand. What we say we do not really perceive, and so we can give no form to it, and our speech is of necessity empty and meaningless. This, and this alone—that our speech does not spring from and express life rich both inwardly and outwardly, both in comprehending and in doing—is the reason why both the inner and the outer life of ourselves as well as of our children is so poor. We hear the sound but we get no vivid idea, we see no movement.

O Parents! let us see that our children get what is wanting in ourselves. Let that creative, life-giving, force which we lack be transfused from their lives into ours. Let us learn from our children; let us heed the gentle monitions of their lives, the tacit demands of their minds. Let us live for our children. Then will their lives bring us peace and joy, then shall we ourselves begin to grow into wisdom.

CHAPTER IV

THE STAGE OF BOYHOOD

IN the stage of childhood external objects were closely united with words, and through words with man. Hence, the characteristic feature of that stage was the development of language; and hence, too, the need to connect all the child's actions with descriptive terms. Before an object is named it has no real existence for a child, though he may seem to see it. The word calls it into being for him and remains one with it, even as stem and pith, branch and twig, are one. Yet each object is distinct and separate from others, each is an unanalysed whole. But human development points beyond this. For man must think of each object not only as a separate concrete whole, but as an organized whole composed of parts so related as to subserve a specific function, and further as itself a component part in a wider system fulfilling a wider and higher purpose. It is necessary to grasp not only the obvious relations of thing to thing, but those inner and hidden relations of identity which bind together objects seemingly diverse.

The unity of the whole external world cannot be grasped by man. He can approach it only through knowledge of the essential nature of particular objects. And this knowledge he finds it hard to gain if a thing be brought too near to him, physically or mentally, and the difficulty increases with increasing nearness. The frequency of family

misunderstandings is a standing proof of this. This is the reason, too, why man finds it so hard to know himself. Contrariwise, outward separation often promotes inward union and fuller comprehension. So, alas ! man is better informed on matters abroad than on conditions at home—he knows more of foreign lands and peoples and of distant times than of his own land here and now ; yea, more than he knows of himself. Indeed, a man can only get to know himself by looking at himself, as it were, from without. If, then, man is to fulfil his destiny to know each thing truly, and truly to know himself, the stage of childhood must be followed by a stage antithetical to it. As childhood united man and object, so this stage must, while preserving that union and making it closer, explicitly hold them apart by loosening the bond between thing and name. So the characteristic of this new stage is the liberation of language from bondage to things. When the child has learnt to separate name and thing, speech and speaker, and when later on he sees language itself take on a material bodily form in writing, he has passed from childhood into boyhood.

As childhood was absorbed in mere living and in realizing the inner life in outward act, so boyhood is emphatically the time for learning; that is, for receiving into the soul the message of external things.

In infancy the nurture required is mainly physical ; in childhood it trains activity so as to strengthen the growth in personality which marks the period. But boyhood is naturally drawn towards things and their relations, and this is a necessary step towards comprehending them later as one systematic whole. Now, to deal directly with things and their relations is the work of instruction. Consequently, boyhood is the special time for instruction.

The giving of instruction is governed less by the special laws of man's nature than by those of the physical world, especially those which govern both things and men. It is, therefore, determined by fixed and definite conditions external to man, and demands knowledge, insight, tact, and purpose. Such giving of instruction is *school* in the widest sense of the term. It is school wherever the human being is led to knowledge of things and of the nature of things as shown by the special and the universal laws which relate them.

Yet it must not be forgotten that human development is continuous. The vague beginnings of social feelings in the infant become the impulses and inclinations of the child, and these in turn are differentiated into emotions, and unified in disposition. But these are the motive-forces to both intellect and will. It follows that the main purpose in the training of boyhood through instruction is to cultivate an active, firm, and persistent, will, bent on the pure object of a true human life. ✓

Will is mental activity in harmony with the whole nature, proceeding from a definite starting-point and moving in a definite direction towards a determined goal. This statement is all-embracing. It includes all that parent and family, teacher and school, by example and precept should give to the boy. The initial impulse to all mental activity in the boy should be strong and healthy; the source from which it springs pure, clear, and perennial; the direction simple and definite; the end sought sure and clearly apprehended, vitalizing and ennobling, deserving effort because worthy of man's nature and destiny and calculated to enrich his experience.

That a boy's natural activity may be raised to genuine firmness of will it is, therefore, essential that every

exercise of it should both spring from, and be in constant relation to, the development and formation of his spirit. Example and precept give the means. But neither by itself suffices. Not example alone, for it is only particular, and needs the word to extend its pertinence ; not precept alone, for it is general, and needs example to point its application. Not even in combination are they enough. They must be met by a good and responsive heart, and this only results from a true education in childhood.

So it is seen that the education of boyhood rests wholly upon that of childhood. Activity and strength of will grow out of activity and strength of feeling. If the latter be lacking the former will be hard to secure.

The activity of a child's responsive and good heart is itself a unity which expresses his intense and innate longing to find in the separate things around him an essential unity such as he feels within himself—an inner bond which alone can give them a living meaning for him. In childhood this longing finds satisfaction in play. For in play the child is the centre of everything and refers everything to his own living needs. Yet more does it find satisfaction in the family life. That alone cultivates in full vigour the good heart and the thoughtful, receptive attitude which are so important for every stage of development, and, indeed, for man's life as a whole. Since, then, the longing for unity is the prime motive-force of all human development, and since, on the other hand, everything which makes for separation hinders that development, therefore, for the child the united family life is the type to which all experiences are referred, a mirror in which he sees reflected the whole of life. Parents should bear this in mind—that the child aims at moulding his own life in its purity, harmony, and efficiency, on the model he finds in the family.

Now, he sees his parents, the elder members of his family, and other grown up people, engaged in useful work, and he wants to imitate them that he too may be productive. So the activities in which as a child he engaged for their own sake he now turns to the attainment of results. The impulse to mere activity has grown into the impulse to produce—to form by activity. Into this the whole outer life is absorbed.

How boys and girls delight to share those real labours of their parents which call for strength and perseverance, and prefer them to the easy and playful occupations in which they have hitherto joined! But here how easy it is, by repelling the proffered help as childish, worthless, or even hindering, to destroy this creative impulse, or at least to suspend it for a long time. Feeling himself thus shut out from the whole with which he was identifying himself scarcely any boy will renew his offer of help after a third rebuff.

His spiritual power is weakened by meeting such an obstacle as the parent's will, and with frequent repetition of such inhibition it sinks into absolute apathy. He does not weigh the reason why his help is accepted at one time and rejected at another. He yields to his physical nature and ceases the attempt to help, and that the more readily that to do so seems in accord with the parent's will. So he becomes lazy and fretful, for his body is no longer inspired by his spirit. From being a powerful instrument of the spiritual life within him it has become a mere dead weight under which he bends. Therefore, if parents look for their children's help in the future, they must cherish their early impulses to be of use, even if to do so involves a little self-control and self-sacrifice. Like good seed in a fruitful soil it will spring up and bear fruit a hundred-fold.

In childhood the boy imitated the doings in the home, now in boyhood he wants to share the actual work—to lift, to pull, to carry, to dig. He desires to try his strength on everything, both that he may increase it and that he may know the extent of his powers. Everywhere—to field and garden, to workshop and office, to meadow and forest—the boy goes with his father that he may join in whatever the father has to do. Innumerable questions burst from his enquiring soul, athirst for knowledge. How? Why? When? What for? Any answers at all adequate open up to him a new world. So language seems to him the one intermediary between himself and the outer world, and in that way to have an independent value of its own.

The healthy boy who has been brought up simply and naturally in childhood never shirks an obstacle or evades a difficulty. Rather does he seek them that he may overcome them. “Let it be,” cries the vigorous lad to his father who is about to take a log out of his way, “I can get over it.” It may be that the first time he does it with difficulty, but he does it without help. With augmented strength and courage he returns and climbs the log again and again, till at length he leaps it easily, as if, indeed, there were no such obstacle in his way. As activity delighted the child, work delights the boy. So boyhood is daring and loves adventure. It joys in exploring caves and gorges, in climbing trees and rocks, in searching heights and depths, in roaming through fields and forests. To a boy nothing seems difficult, nothing dangerous, so long as the impulse to do it springs from his own inner life of heart and will.

But it is not only the impulse to put forth and test his strength which thus urges the boy abroad to hill and dale. Yet more is it the growing need of his spiritual life showing itself in impulse to see many things, and to

see them as parts of a whole ; especially to bring the remote near to himself, to understand the range, the variety, the connectedness of all things—in a word, to extend his mental horizon.

To climb a new tree is to the boy to discover a new world. Seen from above, everything shows clear and distinct ; different indeed from the cramped and distorted side view he gets from his accustomed place on the ground. Did we but remember the emotions of our own boyhood we should not so readily call to him to come down for fear lest he fall. Should we not wish that in such a way the boy should enlarge and raise his thoughts and feelings ? Nor need we fear that he will become reckless. If from early youth he has been encouraged to measure his strength by his past deeds he will on each occasion expect to be able to do just a little more than he has done before. So he comes safely even through dangers, as though shielded by a guardian spirit. On the other hand, a boy who does not know the true measure of his strength runs into real danger even where the most timid would see none. Indeed the truly reckless boy is one who, while ignorant of what he can really do, is seized by a sudden strong impulse to show his powers. Then, indeed, he is apt to rush into actual danger.

Equally characteristic, and equally valuable for the growing life, is the impulse to explore caves and forests. The motive-force is the desire to seek and find the new, and to bring to light the hidden. The boy comes back with a rich and varied treasure of stones and plants and animals. Of each he asks the nature and the name, and with every new word his world gains meaning. Never check his advances, though it may be well to caution him against handling strange animals, yet not in such a way as to inspire fear.

The open plains also attract him. Here he makes a little garden by his father's fence ; there he leads a mimic river along a furrow ; here he learns the moving power of water-pressure on his toy water-wheel ; there he sees chips and pieces of bark float on the water which he has banked into a little pool. Especially fond is he of using water in his play. So, too, he likes to deal with plastic substances, such as sand and clay ; for on them, too, he can exercise his constructive instinct. In a mound he must dig a cave, or he must crown it with a garden and a bench. Of boards, branches, laths and poles, he builds a house ; of deep snow a fortress ; of rough stones on the hillsides a castle.

Thus does the boy in all self-confidence adapt all about him to his purposes. And thus does each one build up his own world ; for the feeling of personal power demands personal ownership of place and material. The boy's realm may be but a corner in garden or house or room, perhaps only a box or a drawer ; but a realm he must have as the objective centre of his activities, and it is best that he should choose this realm himself.

When the realm is big, then is the occasion for brotherly union with other boys of similar tastes. So is developed the sense of common endeavour either to extend work already begun or to start on some new work.

Especially desirable is it that boys should own gardens and cultivate them for the sake of the produce. For in this work man first sees a sure result of his own labour. The produce is, indeed, subject to laws of nature which he cannot control ; but nevertheless, a great deal depends upon the amount and character of his own effort. So in cultivating a garden, a boy's life with nature and his curiosity as to her operations find fullest satisfaction. If a boy cannot have a garden of his own he should at

least have a few boxes or pots in which to grow some common hardy plants, rich in leaves and blossoms.

The child or boy who has tended another living thing, even though it be of a lower order, will more easily be led to watch over his own life. Further, the care of plants will help to satisfy his wish to observe such other living beings as beetles, butterflies, and birds, for these will visit the plants.

All the plays of boyhood, however, do not aim at representing things. Many have for their object simply to test and display strength. But, whatever its nature, the play shows the characteristic feature of boyhood—the presence of definite conscious purpose. This appears more and more plainly with advancing years, and is evident even in such games as running, racing, boxing, wrestling, games of hunting, sham fights, games with balls. It is the sense of growing power which makes such games so delightful to a boy. Nor is it only bodily power that is fed and strengthened by them; moral and intellectual vigour is also fostered and concentrated. Indeed, the spiritual life gains more than does the physical life. Justice, temperance, self-control, truth, faithfulness, brotherly love, strict impartiality, are all to be seen in a group of boys playing such games; to say nothing of courage, endurance, determination, coolness, and the banishment of slackness and self-indulgence, and those other fruits of a good heart and a firm will—forbearance, patience, care for the weak and the frail.

Every town and village should provide a special playground for its boys. Rich would be its reward!

For, whenever they can, boys play together, and so their games cultivate the sense of common interests and social obligations. The boy seeks to see and feel himself in his companions, to pit himself against them and

measure himself by them, and so to know himself through them. So it is that games develop social and civic virtues, and thus train the boy for life.

But the seasons and other circumstances make it impracticable for a boy always to exercise his strength in the open air. Yet he should never be inactive. So indoor active occupations—such as constructive work with paper and cardboard, modelling, etc.—are indispensable.

But man has another innate impulse which bodily activity does not satisfy. The present, with all the richness of occupation which it offers, is not enough. The fact of the present brings home to him that there must have been a past. So he wants to know what it was, that he may find in it the causes of what now exists. He wants the remains of the past to tell him their story, that he may know why they exist and in what circumstances they came into being.

The boy seeks this information from those around him, and so there develops in him the desire for story and legend, and, later on, for history. So strong is this craving in early years, that when others fail to satisfy it, he seeks to supply the need by his own inventions. Who has not seen a group of young boys hanging on the lips of one of themselves—their chosen story-teller—as he pours forth the fruits of his imagination and his memory in a story acceptable to their own ideas and feelings?

Still the boy's present contains much that he cannot explain by himself, and yet wants to have explained. Much seems dumb that he would hear speak, much dead that he would fain see alive. So he wants others to make these things speak and live. He wants them to tell him plainly what is the hidden living bond which he vaguely feels must connect all things together. It is

because those around him cannot always do so that his craving for fables and fairy tales becomes so imperative. For these endow speechless things with speech and reason—the fable within the range of human relations and natural events, the fairy story transcending those limits. All must have noticed, too, that when the explanations of others fail, the boy will invent fables and fairy stories, and either work them out by himself or entertain his friends with them. So these inventions show clearly to the careful observer what goes on in the boy's mind, though he himself may not know it. What he feels and cannot express he wants others to expound. The words he cannot find in himself he rejoices to hear from another, especially in song. The young boy delights in song, for in it he finds a new life. It is this feeling of growing power that causes him to burst out into full-throated melody as he rambles over hill and dale.

The craving for knowledge of the past draws the boy ever and anon to ruins and old walls ; and here again his overflowing feelings find vent in song. So we may be sure that indications of a boy's spiritual life may be found in much that he does. His doings are, therefore, symbolic. Well would it be both for their children and for themselves if parents realized this symbolism and learnt to read the young lives through it ! Then would parents and children be drawn more closely together ; then would the present and the future of the little ones be more vitally conjoined.

CHAPTER V

FAULTS OF BOYHOOD

WE have hitherto considered the true nature of childhood and boyhood. Happily it is realized, and sometimes in even greater perfection than we have portrayed, whenever in actual life is found an education truly adapted to human needs. Let us now turn to the kind of childhood and boyhood we commonly see around us in our daily life.

Let us ask what the boy is actually like as a member of the family, as a scholar, and as a companion. We must admit that we see much that is far different from our picture. We find self-will and stubbornness, mental and physical indolence, ungoverned appetite, vanity and conceit, self-assertion and a domineering spirit, disregard of family claims, emptiness and superficiality of mind, disinclination to work and even to play, disobedience, neglect of God. If we seek the origin of these and many other faults of actual children and boys we find two sources. One is a complete neglect of the development of certain phases of true human life; the other is an arbitrary interference with the natural orderly cause of development, so that capacities originally good are distorted and turned into wrong channels.

Certainly man's nature is good, and so are his qualities and tendencies. Man is not naturally bad, nor are his innate qualities and tendencies evil, unless, indeed, we

regard as evil all that is finite, bodily, and transitory, and the necessary consequences of these limitations—that man must be capable of failure in order that he may attain virtue, capable of enslavement that he may be really free. Yet these are inevitable, because in man the eternal is made manifest under temporal conditions; they result from the truth that it is his destiny to become self-conscious, rational, and free. No one who is not able to do what is earthly and finite can freely and of set purpose do what is divine and eternal. Since God willed to reveal himself in the finite, he could do so only through a finite and transitory medium. Consequently, to say that what is finite, bodily, and transitory is for that reason bad is to condemn the whole of created nature; yea, to blaspheme God.

Moreover, it is treason to human nature to say that man is naturally neither good nor bad, much more to affirm that he is naturally bad. To do this is to annihilate God for mankind, for it is to annihilate both his work, and the means by which man can know him, and so to introduce into the world the lie—the primal source of all evil.

But the lie has no independent existence; that is already destroyed, and it remains only to destroy its manifestations. For man is created not for falsehood but for truth. Nor does he create the lie from his own nature; he can lie only because God has formed him for truth. Man creates the lie by failing himself to recognize this and by hindering others from recognizing it.

Man as he lives on earth is meant to be developed consciously, rationally, and harmoniously, both in body and in soul. Could he but grasp this clearly, and were his will unweakened by bad habits and indulgence, he would at once cast off all his faults, and even the appearance

of evil that now covers him as with a garment of deceit. All his wrong-doings originate in the disturbed relation between his true and original nature and the distorted humanity into which he has grown. So, under each human fault lies a good tendency, which has been crushed, misunderstood, or misled. Hence, the infallible remedy for all human wickedness is first to bring to light this original good tendency, and then to nourish, foster, and train it. Then the fault will ultimately disappear. If the struggle be long it is not against original depravity but against evil habit; and the victory is won the more easily and surely because man naturally prefers right to wrong.

For example, it cannot be denied that children and boys show little innocence, little consideration for others, little brotherly forbearance, little religious feeling. On the contrary, they are often selfish, unkind, and rude. But this is simply because, from their earliest years, the bond of affection between them and their parents has not only not been formed and strengthened, but has actually been broken. If, then, innocence, trustfulness, kindness and consideration, are again to characterize mankind it can only be through fostering sedulously and from the beginning the sympathetic feelings which, in greater or less strength, are innate in every human being.

Another fruitful source of boyish faults is carelessness or thoughtlessness. The boy is carried away by an impulse—perhaps in itself good—without any thought of its consequences, which, it may be, his limited experience hides from him. For instance, a little boy by no means badly disposed, once powdered with plaster of Paris the wig of an uncle of whom he was really fond. He quite enjoyed doing it, and never thought of the injury his joke might do to the wig.

Boys are almost incredibly short-sighted in following their impulses. A boy will throw stones at a window quite intending to hit it, without considering that if he should succeed the window must be broken ; and when the breakage actually happens he stands rooted to the spot in consternation.

It is certainly true that it is usually some other person, and not infrequently the educator himself, who makes a boy bad. The failure to recognize this daily brings its own punishment. The mischief is done by attributing to evil intention what is simply the result of ignorance or thoughtlessness, or even of a sensitive but mistaken sense of right and wrong. Unhappily such maladroit men are found even among educators. For them, children are always mischievous little imps, when others see only too great an exuberance of spirits, or, at worst, a joke not kept within due bounds. Such kill-joys make guilt where there is no guilt, though there is not perfect blamelessness, by attributing to the child evil motives which as yet he knows not. They assure him that his actions are evil, though he meant no ill. So they kill him spiritually, for they convince him that his conduct does not spring from himself, and that his own efforts cannot make it good. When he thus despairs of his power over his own life, knowledge is worthless to him. What worth is it to wish if he cannot attain ?

Yet there are boys who, in spite of many faults of conduct due to ignorance of the relations of life or to unrestrained impulses, sincerely long to grow up good men. True, they sometimes really grow up bad, but only because their longing is misunderstood. If they are understood in time, they will assuredly become good men. Children are often punished by parents and teachers for faults learnt from themselves ; for punishment, especially

reproof, often acquaints a child with faults of which he has hitherto been ignorant.

We see, then, that, in sinning against children, man sins more against man than he does against God. The naughty act of a good-for-nothing child is powerless to impair the dignity of a worthy father. But incalculable injury to body and soul may be done to a younger child by the acts and words of a good-for-nothing boy. And these two symbolize the relations of man to God and of men to children.

As has already been said, a yearning aspiration marks all that a boy does. All his actions have the common characteristic of seeking the bond which unites all things to each other and to himself. A vague impulse drives him to seek the hidden things of nature, for he dumbly feels that what his soul yearns for can only be found in darkness and in hiding. Unhappily, educators often fail to nourish this yearning, and even hinder the boy's efforts to find nourishment for it by himself. For the boy who has been naturally brought up is really seeking—though it may be feebly and blindly—for the unity and ground of all things, that is, for God. Not, indeed, for a god made and fashioned by human thought, but for one ever near the heart, one akin to the living spirit of man; one, therefore, who can only be known in spirit and in truth, and who can only thus be approached in prayer. In manhood satisfaction is found only when the vague yearnings of boyhood have matured into knowledge of him who was thus sought, for only then will the man have found himself.

Such, then, is the true life of boyhood, at once spiritual and bodily.

CHAPTER VI

FAMILY AND SCHOOL

IN the family the child grows into boyhood and reaches the age for school. Consequently school should be linked with the home. The most pressing need of to-day is, then, to relate school to home-life. Till this is done man cannot free himself from the burden of empty verbal formulas stored in the memory—mere husks of knowledge—or experience the joy and power of a living knowledge of the real nature of things. Well would it be for our children and for later generations if we realized that we have little vital knowledge that has grown up with us in our very souls, and that the so-called knowledge which we daily labour to increase is outside our real lives. Well would it be if we ceased to pride ourselves on our second-hand knowledge, thoughts, and feelings, and no longer found the highest glory of our schools in the veneration of our children's minds with the knowledge and skill of others. Then school would be a true school—one which aims at making clear to the pupil the nature and essential relations of things to each other, to himself, and to God, the vital ground of all. This is the aim of instruction, and instruction itself furnishes the means by which it may be attained. School and instruction, therefore, set before the pupil the external world as something distinct from himself, and at the same time himself as part of that world. But it also makes clear the relations of things, and step

by step rises to more general relations, and so advances to a higher spiritual conception of them. So in school the boy passes from a mere external view of things to a higher and more spiritual view. This is his entrance into true knowledge ; this it is which makes him a scholar and the school a real school. Thus, it is not the imparting of information that makes a school, but the living spirit which animates it.

A true school, therefore, implies the presence of an intelligent mind which partakes of the nature both of the pupil and of the external world, and so can link them together in language and understanding. This intelligent mind is the true schoolmaster, so called because his province is to make clear to himself and to others the inner spiritual unity of all things. This the child expects and requires of him, and this anticipation is the invisible but potent bond between them.

That boys are sometimes mischievous in school does not contradict this. The very fulfilment by the school of its function of nourishing the spiritual life leads the boy to feel more keenly and to act more vigorously. It is not good for a boy to be listless and dull : he should be full of life in soul and body. The mischievousness of the schoolboy is, then, a mere overflowing of high spirits without thought of consequences.

Probably we have here the reason why former schoolmasters were more successful in cultivating the true inner lives of their pupils than are their present-day successors, who tell the children many things but fail to show their relations and spiritual unity.

It is the spirit alone which makes a schoolroom a true school—the spirit that unifies things which seem separate, not that which, by ever-advancing analysis, isolates them still more. Never should it be forgotten that the

work of the school is less to teach many things than to bring out clearly the essential unity of all things. It is because this is so continually ignored that school-teachers and places for instruction are so many, schools and schoolmasters so few.

We can now answer the questions : Are schools necessary? Why are they needed? What should they be like? As spiritual and material beings we should develop into intelligent and efficient men. We should endeavour to cultivate the spirit we have received from God, and to show forth in our lives the divine element within us, confident that so will all our earthly needs also be satisfied. We should grow in wisdom and in understanding of all things both human and divine. We should recognize that we and all other earthly things are temples of the living God. We should realize that we are to be perfect even as our Father in heaven is perfect, and in the light of that knowledge live our lives faithfully. To lead us to this is the business of the school; this is why it is necessary; this determines its character.

Further, a clear realization of the true nature of the school makes it evident that the subject in which a boy needs instruction is also that about which he should receive instruction. Otherwise, instruction and learning is an idle game incapable of entering into the spiritual life.

Mankind should rejoice in knowledge and insight, and should attain an energy and efficiency of which we do not even dream. But these must develop in each individual as the outcome of his own life. The boy should take up his future work, which now begins to occupy him, cheerfully and with confidence, not sullenly and unwillingly, full of trust in God and in nature, rejoicing in the success of his efforts. He should find satisfaction in his work because peace, harmony, temperance, and all

human and civic virtues, are implanted in him. A father should neither wish his son to take up any business but his own because he esteems it the most thankless of all, nor should he force the lad into his own occupation because he himself finds pleasure and profit in it. He should recognize that even the meanest occupation may be carried on nobly, that every business may be raised to a level worthy of man. He should see that the least work done cheerfully and lovingly will secure not only food, clothing, and shelter, but respect. So will he be without anxiety for his children, whose spiritual growth has ever been his greatest care.

The various directions in which family and school should put forth their combined educative efforts are determined by the needs of this stage of development. So the question of what the school should teach can be answered only by reference to the needs of boyhood, and knowledge of these can be gained only by observation of boys. Such observation shows that the boy is full of a spiritual life of his own, and that he dimly feels that this life flows from, and is dependent on, a supreme Spiritual Being, which lives in all things. That is to say, the boy perceives that he is a spiritual being, and so is vaguely conscious both of God and of the spiritual nature of all created things. This perception and consciousness he is, by his very nature, impelled to make more and more explicit. So he faces the world around him with the presentiment that a similar spirit lives in it as in him, and with an intense yearning to know that spirit and to take it into himself. The world, therefore, presents a two-fold aspect to the boy—as related first to human requirements, and secondly to the requirements of the spiritual power that works within it. These two aspects are connected by language, which at first appeared as

united with both, but now becomes the link between them by gradually freeing itself from this two-fold union.

Hence, the mind and the world—approached first in nature—and language as the link between them are the pivots of the boy's life. Through them the school by instruction should lead him to a three-fold yet unified knowledge—of himself in all his relations, and so of human nature ; of God, the eternal ground of the being of himself and of all things ; of nature and the whole outer world, as created and conditioned by God. So school through instruction should lead him to life in harmony with this knowledge—from impulse to will, from activity of will to strength of purpose, and, thus, in unbroken sequence to the attainment of human perfection, which is his true destiny.

The directions to be taken by instruction are, therefore, necessarily the following—

1. The awakening and cultivation of the religious sentiment—the sense of living union with God. This is the ground of the boy's feeling that there is a unity in all things, even amid their manifold diversities, and by its vitality it inspires him to live and act in harmony with that unity. As means to training this the boy should learn by heart prayers and religious passages treating of the relation of man and nature to God. These show him, as in a mirror, his own feelings, intuitions, and yearnings, and so confirm and strengthen them.

2. (a) Cultivation, through a system of well graduated exercises, of respect for the body and understanding of its needs as the servant and instrument of the mind.

(b) Play, or free expression and activity of every kind.

3. Study of nature and the whole external world, beginning with what is near at hand in the boy's immediate surroundings, and thence passing to what is more

distant and remote. In connexion with this, short poems of nature and life should be learnt by heart, preference being given to such as refer to objects and incidents in the boy's daily life and set before him an image of their spiritual meaning. These are especially impressive when sung.

4. (a) Exercises in language, arising at first out of observation of nature and outward things, and passing on to a study of the world of mind; but always emphasizing the function of speech as an audible means of representation.

(b) Telling of stories and legends, fables and fairy tales related to incidents of daily life, to the seasons, to any form of real life.

5. (a) Exercises in material representation of form, beginning with the simple and advancing to the complex. To this belongs representation by materials already more or less formed—as building with bricks, constructions in paper, card-board, and wood—as well as the modelling of some plastic material not already partially formed.

(b) Exercises in representation by means of lines on a surface. These should all be related to vertical and horizontal lines, the primary conception of which is derived from the line marking the upright position of the human body when standing, and from the line from shoulder to shoulder which crosses this at right angles. Interlaced sets of these two lines of direction give a rectangular network which makes a framework for these exercises in drawing.

(c) Observation and representation of colours in their resemblances and differences, with emphasis laid at one time on the shape of the coloured surfaces, at another on the relations of the colours themselves. In the former case outline pictures are given to be painted; in the latter the squares on the network paper are tinted.

6. The whole of this is connected with the ordinary

life, and forms part of the common occupations both in home and in school. For boys at this age should have some little duties to perform at home. They might even receive from farmers and artisans such instruction as fathers blessed with common sense often give their sons. When slightly older they should be given little tasks, such as running errands, to perform independently, that they may learn to think over what they do and to have confidence in themselves. It is most desirable that boys of this comparatively advanced age should devote at least one or two hours daily to some really productive work. One of the greatest defects of present-day schools, and especially of the so-called Latin schools, is that they keep boys entirely from all such work. Let it not be objected that boys can only reach the standard of knowledge expected of them by throwing their whole energies into filling their minds with verbal records and statements. On the contrary, we learn from all genuine experience that combination of practical with mental work strengthens not only the body but even more the mind, which after such work returns to its studies with renewed vigour.

If we now review the directions taken by the educative energies of family and school we see that they fall into three divisions, which respectively are related to (a) the quiet and passive life of feeling, (b) the more receptive mental life, (c) the expressive outward life of bodily activity. They, consequently, meet all the common needs of human nature. We see, further, that they cultivate the senses, and all the spiritual and bodily capacities of man, and so satisfy the general demands of human life. In the last place, we see that as they can all be given in simple, orderly, life, harmoniously shared by family and school, such a life fulfils all the requirements of human development in the stage of boyhood.

CHAPTER VII

CULTIVATION OF RELIGIOUS SENTIMENT

RELIGION is the striving of man to know explicitly what he dimly feels—that his spiritual nature is akin to God, to realize the union with God which this implies, and to live his life calmly and valiantly in the light of this realization. So religion is not a stationary thing, but is a never-ending endeavour.

Religious cultivation encourages and strengthens this striving, by making it clear that the soul is divine in essence and attributes, and by throwing light on the workings of the divine spirit in nature and on the relations of God to man as seen in history, in daily life, and in Holy Writ. This knowledge it applies to life by pointing out how man may satisfy his longing to live at peace with God, and how if that union be impaired it may be restored ; in a word, it shows man his duty.

It follows that religious cultivation presupposes some small amount at least of religious feeling. Were it possible for a man to be utterly without the religious sense nothing could make him religious. Parents who carelessly allow their children to reach the age for school without any attempt to cherish their religious feelings would do well to lay this to heart.

Insight into the nature of religion is seldom clear, because man tends to assume separation as precedent to unity, and unification as implying association in space

and in time. But God is everlastingly a unity, for he is spirit. As the idea of fundamental unity excludes precedent separation, so that of unification excludes connexion in space and time. This is abundantly proved in experience. For example, the idea which a man embodies in some external work was at first one with him, and still bears the impress of his personality. But the representation of his idea has taken nothing away from him; and the thought itself he will always recognize and care for as his own, though it now appears wholly apart from him. The thinker and the thought—if the latter could become conscious of itself—must ever be penetrated by the truth that they were originally a unity; yet the thought is not the thinker, though it is one in essence with him. This is the relation of the human spirit to God.

To take another illustration. A father has many sons, yet each in his own self-conscious individuality expresses the nature of the father, though in a form modified by that of the mother. Yet a son does not diminish the spiritual life of the father. So, too, each son is a whole, and none is either part of another or part of their common father. Though they are all one in nature, yet each is whole and undivided. A clear insight into human relationships would, then, enable us to understand the divine.

Again, unification does not imply collocation in time and space. A man may sympathize and act with those he loves though lands and seas divide him from them. Or he may feel himself in harmony with men he has never met, or with others who lived and worked thousands of years before him or who may live thousands of years after him.

It is a great and eternal truth that the relations between

✓✓ God and man are mirrored in human relations, especially in that between parent and child.

When a man recognizes clearly that his spirit came from God and was originally one with God, and that, in consequence, he is ever dependent on God and in constant communion with him ; and when in this dependence and communion, clearly realized and constantly acted on, he finds his salvation, his destiny, and his real life ; then in true human language he calls God his father, knows himself to be a child of God, and lives in accordance with that knowledge. This is the Christian religion.

The Christian religion, then, is the clear and well-grounded conviction that God must needs reveal himself in a three-fold way as creator, preserver, and ruler ; that he has revealed himself in a man whose perfection showed that the whole divine nature was in him, and who was, therefore, his only-begotten son ; that he continuously reveals himself in all things ; and, further, it is a life in harmony with this conviction.

Similarly, speaking of human relations, but with deep spiritual meaning, we may say that the spirit of peace and order and purity pervades a whole household ; or that the father's spirit is revealed in the entire family. So, too, we may say that the spirit of an artist inspires each and all of his works, so that each is a living expression of his soul.

Thus the Christian religion involves the conviction that this knowledge alone can bring not only man but all created things to the accomplishment of the purpose of their existence, and that every individual thing can fulfil its destiny only by manifesting itself in this three-fold way—as in union with the whole, as individual in itself, as continuously manifold in its relations.

The truth of this conviction is the sole basis of all

insight and knowledge, the one test of conduct, the ground of all religious instruction. Through it, nature is rightly comprehended as the revelation of God. So it gives a language to nature as well as to man, and vivifies all teaching and learning, all knowing and doing. It unifies life, and alone makes possible a true human education. It gives support in trouble, and without it life is devoid of meaning and of purpose.

Hence, above all things school should teach the Christian religion.

But the only key to an understanding of the truth that the relations of God to man are those of father to child is the clear apprehension of earthly family relations. Only to the extent to which we realize in thought and deed these intensely human, but essentially spiritual, relations shall we comprehend our relations with God so vividly that every desire of our hearts is satisfied and raised from a vague longing to a conscious aspiration.

But when a child has grown up in true unity of life and feeling with his parents this unity will be strengthened in boyhood if nothing intervene to disturb it. This spiritual unity, which is more than the vague feeling which arises from merely living together, is the firm basis of true religious sentiment. Such a union proves even to the boy that God guides the development of humanity, and watches over and helps each individual with increasing fatherly care. As the boy advances in understanding, his strength, his courage, and his perseverance, are increased by the recognition that these truths are confirmed in revelation, in nature, and in the lives of himself and others; by the realization that he is a member of an ever-widening world, unified by a common purpose to express, under divine guidance, the spiritual in the material and the human. The life of a boy in such a family will be a true prayer

expressed in action, a full and effective Christian life marked by love of God and of man, and by ready obedience to the divine commands. Only when the cultivation of the religious sentiment is based on such a spiritual union between parent and child, so that there has early been aroused in the boy a sensitiveness to spiritual things, is it blessed and fruitful. Nor need we fear lest any feature of the spiritual life prove too deep for the boy; if the facts enter into his life he will find their spiritual meaning in terms intelligible to himself.

Indeed, we underrate the young boy's spiritual capacities, even as we underestimate his mental powers. This is why in later boyhood his life and soul are often so empty, so poor in experiences, and consequently so obtuse in all that relates to morality and religion. But few points of attachment for instruction concerning the true religious life are present in his soul, yet much is expected from him.

Children and boys are taught much about matters which are foreign to their experience, and which, in consequence, they cannot understand; but they are left untaught in these spiritual matters, which they can understand because they do come into their experience. So they are early introduced to the outer world, and become strangers to their own spiritual life. If man is ever to comprehend spiritual verities he must experience them. So we must secure that the boy has many such experiences and becomes conscious of their spiritual character even when they are the most trivial. Unless he advance from the knowledge that God is his father to the recognition that God is equally the father of all men future attempts at religious training will be sterile.

Many errors and half-truths in religion would be avoided if the spiritual life were developed earlier and in

harmonious relation with the life of the world. In the same way we should escape misinterpretations of such common religious maxims as "The good will be happy," which, in the one-sided interpretation usually given to them, make against, instead of for, the welfare and good of mankind.

To the boy, with his meagre experience, life is a whole; conduct and consciousness are still unseparated. So he draws no distinction between the external consequences of good deeds and the contentment of spirit which ensues on their performance. Yet, in truth, conduct and consciousness are different spheres, and their manifestations are necessarily diverse. So that such a common maxim as the one we are considering must either trouble a boy's inner peace and diminish his spiritual power or, at least, lead him to form false estimates of the experiences of his life.

Definite instruction in religion should rather, by reference to individual and general experience, aim at demonstrating the truth that single-heartedly to seek the good is to expose oneself in life to much that is hard and painful and troublous. For only through suffering can the spiritual life find full fruition.

To help the boy to grasp this firmly he should be led to compare the life of a man with that of a tree. Every stage of development, however beautiful it may be, must vanish and be destroyed to give place to a higher stage. The warm protective cover of the bud must fall when the fragrant blossom is ready to unfold, even though this be to expose the tender blossom to the severe weather of early spring. In its turn the beautiful blossom must fall that a fruit, at first hard, bitter, and void of comeliness, may take its place. Yet again, the delicious, rosy, fruit, refreshing to man though it be, must decay that new and

vigorous young plants may germinate. In like way, by renunciation and by the sacrifice of the material for the sake of the spiritual, does man approach the perfection of his being.

Equally disastrous are the consequences to true human life of the prominence often given in the exposition of religious truth to the promise that good deeds shall win their reward in the next world if they seem to be unrewarded in this. This does not influence coarse and pleasure-loving natures, while good dispositions have no need of such a spur, even though everything that makes life attractive to the senses be wanting. To hold up a reward in a future life as an inducement to live worthily in this shows little understanding of human nature and little regard for its dignity. If from early years a human being be enabled to live a true life he can be brought to recognize the dignity of his manhood, and to find the sufficient reward of well-doing in the assurance that he has done nothing unworthy of himself.

Who can doubt that the good boy is satisfied with the joyful conviction that he has acted as his father would wish, and has no thought of any extrinsic reward? We degrade human nature when we set up an external prize as a motive for conduct—even though that prize allures to a better world—and neglect to cherish the active spiritual force which urges every human being to a worthy human life. Let but a boy's thoughts be early turned towards the motives for his actions, rather than towards the pleasantness or disagreeableness of their results, and from experiences thus evaluated there will arise in him a sane thoughtfulness which is the best treasure of boyhood and youth.

Instruction in religion should throw light on such experiences so that they are clearly understood and are seen

to harmonize with each other ; should, from an examination of them, derive axioms of conduct applicable in all conditions of life, and show that these are in accord with the teachings of God's prophets. Thus mankind will attain true religion, and the religious development of the individual will more and more be harmonized with that of the race, to the salvation of both. Then will superstition, scepticism, and tyranny vanish from among men, and the glorious consciousness that in God we live and move and have our being will be strengthened and confirmed.

In the heart of a boy who has grown up in spiritual unity with his parents, and is not unfamiliar with his own conscience, religious sentiments spring up spontaneously. At first they are but vaguely felt as an uplifting and an enriching of the soul. Then it is well that words be found for them, to concentrate and vivify them. Nor need we dread that if such words be given by others they will impose on the boy a feeling unreal to him. Religious sentiment takes on a specific form, and finds a specific expression, in each individual. So, though a number of boys may learn by heart the same simple maxim, yet it will influence each in a different way, always provided that it draws its meaning for each from his own life.

It must be remembered, however, that it is neither necessary nor useful to make frequent changes in the forms of words learnt by young boys for the purpose of making their spiritual life articulate.

CHAPTER VIII

CULTIVATION OF BODILY LIFE

MAN respects things less according to his knowledge of their qualities and usefulness than according to his own ability to make use of them. He cherishes a thing only when he recognizes that the attainment of his purpose depends on keeping its qualities intact.

It must not be supposed that a boy really knows his body because it is so personal to him ; still less that he can make use of his limbs because they are parts of his body. Boys whose bodily training has been neglected often need to be warned not to be clumsy, and men whose bodily and mental developments have not advanced side by side are sometimes at a loss how to dispose of their bodies and their limbs, which are a positive burden to them. It is true that the occasional cultivation of the body furnished by the common occupations of the house may do much, but always in an inadequate and one-sided way.

Man should know not only his powers but how to use them, and this can be attained only through a systematic and harmonious cultivation of the whole body and all its parts to be an organ for the expression of mental life.

This is illustrated by such elementary forms of instruction as writing, drawing, or playing a musical instrument, in which bodily position and control of limbs are essential. If the boy has not, by natural all-round exercise, attained

automatic control of his body, a mechanical drill must try to take its place. Then reiterated commands to sit upright, to keep the arm in the right position, and so on, drive all the life and profit out of the instruction.

A dexterous and vigorous body, competent to meet all the demands of life, and a dignified carriage, are produced only by a general training of the body as officer of the mind. To give boys systematic bodily training, adapted to their mental development and advancing from simple to complex exercises, would be to do much to lessen rudeness, coarseness, and awkwardness of manners. In boyhood the will has not constant control of the body ; consequently, the body should be trained to carry out automatically the intentions of the mind, as we see in the case of a skilled musician. Without such cultivation of the body, therefore, education can never attain its end of complete human development. So the body as well as the mind should receive an all-round training, and physical culture should be given by every school.

Without this, real discipline, which is the very centre of education in boyhood, is impossible. / Discipline implies that the boy in all his actions respects his own human nature because he realizes its dignity and worth. / The more clearly he recognizes the requirements of his true humanity, the more definitely and firmly should the educator insist on the fulfilment of those requirements. He should not even shrink from severity and infliction of punishment if the good of the pupil demand it ; for boyhood is the time for discipline.

Moreover, after hard mental work both mind and body need vigorous, though strictly regulated, physical exercise, and this reacts on the mind and strengthens it. |

But bodily exercises have yet another important

function. They lead the boy to a living knowledge of the inner structure of his body, for when engaged in them he feels vividly the interaction of all his members. This perception, with the help of even moderately accurate sketches of its inner structure, must give the desired knowledge of the body, and induce an intelligent care for its welfare.

As to play, the following may be added to what others have already written. The free play of early boyhood is of three kinds—imitations of the doings of actual life, spontaneous applications of what has been learnt in school, impulsive manifestations of any and every form of mental vitality. The form of the last class may be determined either by the laws of the material used or by those of human thoughts and feelings. But in every case the natural games of this period are direct manifestations of energy and vitality, and evidences of the joy of life which fills the boy and strives to find an outlet. So these plays not only prove the energy of the bodily life, but presuppose a vigorous spiritual life. When this is lacking, true vitalizing play is also wanting.

It follows that the boy should be trained and guided even in his play. In other words, his life in and out of school should be made so rich that it spontaneously bursts forth in joy and gladness, for joy is the very soul of boyhood.

The games themselves may be body-games—exercises of strength and dexterity, or simply ebullitions of buoyant spirits; sense-games, training hearing—as blind-man's buff, or sight—as shooting-games and colour-games; or mind-games, exercising reflexion and judgement—as draughts.

Games have frequently been classified, but seldom with reference to their true purpose and to the spiritual needs of the body.

CHAPTER IX

STUDY OF NATURE

NATURE presents the truths of religion in visible form, and confirms what we learn by meditating upon God. What we thus conceive we find existing in the material world. So it is that nature satisfies the demands of religion. For, like all that exists, nature reveals God. Things exist only for this purpose—to manifest the divine spirit which is in them and to which alone they ✓
owe their being. Everything is, then, divine in nature and in origin. So the whole of existence is one, though only relatively so as compared with the absolute unity of God. Because of this relative unity everything reveals its divine nature in a three-fold way in continuously progressive development. This truth underlies all real understanding of nature, and so is the essential condition of fruitful investigation into its essence.

Such real understanding is possible only to the man animated by the Christian spirit. Only as far as the searcher is convinced of the truth that the divine spirit which lives in him, and to which he himself submits, equally originates, supports, and energizes, all things, can he see this spirit in its unity, as well in the smallest occurrence as in the whole world of nature.

The best analogy of the relation of nature to God is that of a true work of art to the artist. In a lesser degree, the analogy holds between all human work and the

worker. Whatever a living spirit calls into being must bear in all its parts the impress of that spirit. So nothing can be perceived which does not thus bear the stamp of its origin. Now, as the artist's thought and feeling in his work can be seen by the understanding eye, so the creative spirit of God can be seen in his works. We do not see it because we do not give sufficient heed to discern the spirit which inspires the works of men. As the artist's very being is present in his work, so that it reveals his spirit, and yet his being is not lessened but rather strengthened by his work, so is it with the divine spirit. Though the spirit of God is present in all things so that they reveal that spirit, yet the being of God is not lessened. As the spirit of the artist lives in his work and can by that work be communicated to others, so the divine spirit lives in nature and can be communicated by nature. Yet, as the artist's work contains no material part of his being, so nature is not the body of God.

Nor does God dwell in nature as in a house. He lives in it as a fostering and developing spirit.

To the artist a true work of art on which he has lavished thought is like a beloved son going forth into the world fortified by his father's blessing and counsel. As the father is not indifferent to the kind of company his son keeps, yet is confident that his own spirit dwells in him and will keep him safe, so the artist is not without care as to who buys his picture, yet hopes that his own spirit, which pervades it through and through, will protect it and bring it to men who will receive that embodied spirit into their own souls and let it work in them.

If man feel himself one with the work of art he has created, yet which has no drop of his blood, no part of his frame, in it, and preserves and protects it, how much more shall God keep and guard his work? For God is

God, and man is only man. And as the artist continues to exist unchanged even though all his works perish, so God would be still the same though all nature were annihilated.

As the ruins of man's great constructive works tell succeeding and weaker generations of vanished human power, so the mighty remains of shattered mountains bear witness to the greatness of the spirit of God. Thus everywhere we find the same vital relation between the artist and his work and between God and nature.

It is well that we should try to get insight into the spirit which inspires human works, for so can the undeveloped soul gain profit from one more mature. Much more essential is it that we strive to study the things of nature that we may learn their meaning and their relation to the divine spirit. And we should be the more urged to this by the fact that nature is always accessible, while true works of art which set forth the pure spirit of man—itsself the spirit of God—are often inaccessible. True, we might find this spirit directly in men. But it is hard to distinguish in the individual what belongs to the general human spirit from what is peculiar to himself. On the other hand, in the pure works of nature the particular is quite overshadowed by the general. In them, therefore, the divine spirit can be more clearly discerned than in men, and in them, too, we see reflected the dignity and greatness of ideal human nature. There, besides, we find imaged man's aspirations and strivings to attain this ideal, so that from this silent teaching we may learn how to shape our lives.

Of all natural objects, none present so true a picture of human life as do plants, and especially trees.

Not only can the individual human life be seen mirrored in the growth of a tree, but also the life of the human

race. For comparison of the development of the race with that of the individual man makes it clear that the latter epitomizes the former, so that we may regard the whole race as one man who passes through all the essential stages of human life in their proper order. It is true that this has as yet scarcely been fully established, but a deeper insight into the parables of Christ may lead us to its proof.

The reason why individual natural phenomena have this deep symbolic significance in relation to the life of man is that both nature and man have their origin in the same eternal Being, and that the development of each follows the same general laws, though in different steps of advancement.

Thus the comparative observation of nature and of man leads to a deeper knowledge of each. Clear insight into the relation of man to the work he creates leads to clear insight into the relation of the creative and formative spirit of God to nature, and to a knowledge of how the finite and material issues from the infinite and spiritual.

As in art the spirit of man, though unseen by the natural eye, can be spiritually discerned, and so art may be called the invisible-visible realm of the human spirit, so, in like manner, we may speak of nature as the invisible-visible kingdom of God. Only when we feel and acknowledge this three-fold kingdom of God—the visible, the invisible, and the invisible-visible—and submit ourselves to its influence, can we attain that peace which everywhere and ever we seek, even at the cost of our earthly goods, of our very lives, of all that makes for earthly well-being.

Therefore, if for no other reason, man, especially in boyhood, should gain an intimate knowledge of nature; not merely an external familiarity with particular forms and

phenomena, but an internal apprehension of the immanent divine spirit. The boy instinctively yearns for this, and so, where this yearning is as yet unspoiled, nothing so unites teacher and pupils as the conjoint study of nature. Parents and teachers should bear this in mind, and teachers should take each division of the school into the open country at least once a week, not driving the boys like sheep nor leading them like soldiers, but walking with them as father with sons or elder brother with younger brothers, pointing out to them whatever nature or the season offers. Country schoolmasters should not urge that the out-of-door lives of their pupils render such walks unnecessary. It is true that the children run about in fields and forests, but they do not truly live in and with nature. They neither feel its beauty nor realize its influence on the human spirit. We see, indeed; many adults who have grown up amid scenes of natural beauty and yet are unconscious of their charm. The boy feels himself drawn towards the spiritual in nature, but unless his yearnings be welcomed and strengthened by his elders, either they die away or he loses his confidence in those whom he should respect. That is why boys and adults should go out together, and together strive to feel in their hearts the spirit and life of nature. Were this done there would soon be an end of the aimless sauntering which characterizes so many boys.

Little boys often ill-treat insects and animals without any cruel design, in a desire to get insight into their lives and to understand their spirits. If guidance and explanation be lacking, or if this impulse be misunderstood, it may in time harden into ruthless cruelty.

Nature, then, offers itself to our spiritual meditation as the work, the likeness, and the word, of God. That is its essential character. Far otherwise is it commonly

regarded. To the vulgar, superficial view, nature consists of many different and separate things, each with its own peculiar and independent character and purpose, and giving no indication of an inner bond of connexion. Nature appears as a totality, not as an organic whole.

Such a superficial view of nature fails to realize that all phenomena originate in one and the same Being, and attributes them to the operation of independent forces. But this cannot satisfy the human mind even in boyhood, for that mind is itself one and undivided. So the boy instinctively searches for unity in the diverse objects he perceives. He is gratified when he begins to find it, but only when he has fully grasped it is his spirit really content.

Patient study of the diversities of plants, or of other natural objects, leads to the spiritual apprehension of hidden law. For, however great may be the apparent differences, and however wide the apparent separation between them, the particular form and structure of everything is found to have its ultimate ground in energy.

Energy is, therefore, the connecting unity underlying all the infinite variety of natural phenomena. Energy can only issue from energy and manifest itself as energy ; so in its essence it is conditioned by itself, and by itself produces all things. Meditation upon the nature of energy, both as active in our own minds and as the manifestation of the divine power, leads us to understanding of nature, not only in all its numberless forms and relations but also in its vital and hidden unity. Men are led to this meditation by the hope that a knowledge of the nature of energy will bring unity into the diverse relations of perceived phenomena.

Energy is essentially spontaneous, going forth in all directions, originating in a unity, absolute or relative, and

always such that its amount is proportional to that of every opposing force.

The diversity of existing things, however, also requires us to assume matter as a second necessary condition of external form. This diversity implies that all inorganic and all organic forms originate in matter which is everywhere, even in the smallest detail, infinitely plastic and subject to the same laws, because in every part dwells the same force, which, acting through the influence of sun and light and heat, differentiates the general into particulars.

Thus, the diversity of inorganic and organic natural objects proves the conclusion reached by meditation—that energy and matter are inseparably united. Matter and energy spontaneously issuing from a point equally in all directions condition each other. Neither can exist without the other, nor, strictly speaking, can they even be thought of apart.

The ground for the infinite mobility of matter is found in the original spherical tendency of the indwelling energy; that is, in its tendency to issue from a point equally in all directions.

The material result in space of this activity is a sphere. Hence the spherical, or more generally the circular, is both the primary and the final form of all things in nature—e.g. the sun, planets and other celestial bodies, water and all other liquids, air and all gases, and even dust which is the most minute of solid bodies.

Amid all the apparently irreconcilable differences of natural forms the sphere seems to be original—the unity from which they have all developed. So, though like none of them, it yet contains the essential condition and law of them all; it is at once formless and most perfect in form. Hence, all the forms of living, active, natural objects have their ultimate explanation in the law of

sphericity. The fundamental law of all forms and structures is contained in differences of direction and intensity of the energy, and the resulting easy divisibility of matter. The possibility of knowing the nature, relations, and combinations, of forms lies in a clear conception of these differences.

The primary inorganic form is the fixed or crystalline. The simultaneous relation of strength to opposition which is of the nature of energy produces a tendency for energy to act more strongly in some directions than in others, and there to meet with equal resistance. And this is found even in the most minute particles. So an extreme tension in all directions arises in the material, and from that a greater or less tendency to divide in the lines or planes of tension. Hence, the first crystalline forms must necessarily be bounded by straight lines, and must show traces of resistance to the acceptance of the law of the perfect form. So, crystalline forms in which energy acts unequally must precede those in which it acts equally. Consequently, there result solids which have not the regular forms, equilateral on all sides, which would be in harmony with equal activity of energy in all directions. The development of the nature of energy in the production of crystalline forms will, further, ascend from irregular to the simplest equilateral forms; while the essential nature of energy itself in its outward manifestations descends from unity and all-sidedness to individuality and one-sidedness. If we now seek to realize this descent we shall see nature at this stage both in its spiritual impulsion and in its material phenomena, both in all its individuality and one-sidedness and in its unity and universal comprehensiveness.

There is a very remarkable analogy between the development of crystalline forms in nature and that of human

intelligence and feeling. Like the crystal, man, though he bears a vital unity within him, at first shows in his actions one-sidedness and individuality, and only later rises to harmony and completeness. The recognition of this similarity is most helpful and enlightening in gaining a knowledge of self, in cultivating strength of will and confidence in action, and so in educating both oneself and others. Like the world of intellect and feeling, the world of crystalline forms is a glorious and instructive world. It shows in outward guise what in the former realm lies open only to the spiritual gaze.

When we turn to the workings of energy in the world of plants we may note the following facts :

In every part of a plant the vital energy appears in its fullness, though in various stages of development. Hence, it is often possible to gather the form of the whole plant from a single part—from a twig, a bud, a leaf, a piece of root. Hence, too, the manifestation of the fundamental law of plant life—that each succeeding stage of development shows in a higher form the nature of the energy within it ; for example, the leaves are raised by development into petals, the petals into stamens and pistils. Each successive form exhibits the essential nature of the plant more subtly, till at length it appears presented in simple fragrance. Then the inner life being almost identified with its external manifestation is absorbed again in the fruit and becomes once more hidden in the seed. From seed to blossom the life of the plant pushes upwards and outwards ; from blossom to ripening of fruit it retires inwards, but in a higher form.

So in plant life energy is presented not merely in a multiplicity, but in a progressive series, of forms. Hence, when energy withdraws inwards we often find retrogression of forms. Thus petals are replaced by sepals, and

these again by leaves, or, as is common in such flowers as roses and tulips, stamens and pistils by petals.

But since the nature of the whole plant inheres in the appropriate way in every one of its parts, and since the nature of everything is to strive towards its own complete and characteristic embodiment, therefore the impulse of the plant to attain the spherical form is most hindered in the leaf. So it is often the case that when some seeming injury liberates this impulse the spherical form appears, as, for example, in the rose-galls which appear on injured rose-leaves.

Thus plants appear to represent life-energy at rest. From this point of view they may be styled the blossoms and flowers of nature. And, as in plants, after the blossom the energy of life withdraws and concentrates itself inwardly, so in the next step of natural forms and development—that of life and being alive—all outer diversity again represents an essential unity; again, so to say, a kernel or seed in a spherical form. Hence, the lowest animals with their simple globular shapes are like animated seeds.

Thus, through the great law of continuity of part with whole, all inorganic and plant forms constitute one great, organized whole, though that whole is but a part of the universe. Another great and organized whole is constituted by animals, which the universal laws of nature bind, as it were, into one living organism.

Another universal law of nature which is especially evident in the animal world and unifies its diversity is that which connects life and structure. Thus, for example, the first animals, whose bodies are soft, live in shells almost wholly made from stone, and are nearly independent of other animals. Their existence is bound to the fixed shells which enclose their bodies like things with

which they have no vital connexion. Later on, animals appear as freed from this bondage ; no longer, like plants, fixed to one place but free to roam about. Now they and their stony coverings have grown together, and the shell encloses their bodies like a solid rind. In succeeding animal forms this process is continued further. The covering, half gristle, half stone, unites more and more closely with the body, sinking, as it were, into the flesh, till it is lost to sight and becomes in fish and amphibious animals a skeleton of cartilage, though it leaves traces on the surface in the form of scales. In yet later forms this skeleton of cartilage is progressively changed into one of bone, and now the mass of muscle, which was at first enclosed in stone, encloses the stony bones. What was external has passed within ; what was internal is, in the perfect animal, external.

A third great law which appears with especial clearness in the world of animals is that of equilibrium. This is, that a definite amount of energy and a definite amount of matter are in each body and organ, so that if an excessive amount of matter be used in one part, too little will be left for other parts ; as, for example, in the fish the trunk is developed at the expense of the limbs. The most perfect expression of this law is the symmetrical human body. If, for instance, we compare the wing of a bird with the human arm and hand, we see that in the former certain parts have been developed at the expense of others.

It is apparent, then, that all the diverse forms of nature in every stage of development are due to the operation of one common energy. At first this energy is, and appears, a unity, and it expresses itself clearly and fully in independent individuality ; but, in phenomenal experience, it so reveals itself only in the varied forms of

nature, whose diversity, indeed, it implies. This demonstrates afresh the universal truth that only in the three-fold form of unity, individuality, and diversity can the essential being of any natural object be fully expressed.

Here, too, the law of the development of crystals—that individuality advances to universality, imperfection to perfection—is confirmed, and shown to be the law of all development in nature. So man is seen to be the last developed and the most perfect of all earthly beings, in whom the physical form has reached the highest equilibrium and symmetry and the energy which originally proceeded from eternal being is most completely a living spirit, so that man is fully conscious of his power and understands it.

But though man's body has attained symmetry and equilibrium, his spiritual being is tossed by appetites, desires, and passions. As in the world of crystals there are the strivings of simple energy and in the world of plants the strivings of vital energy, so in the world of man is there conflict of spiritual forces.

Therefore, man is still at the first stage of spiritual development, as crystals are at the first stage of the development of life. So, again appears the importance for the education of oneself and of others of a knowledge of the laws of the nature of crystalline forms, and consequently of living things : it instructs and guides, it gives light and peace.

Nature should, then, be early set before the boy as a great living whole, as a presentation of one of God's ideas. It must be set before him as it is and as it appears ; that is, as a whole continuously evolving from itself. Without an apprehension of this unity of the manifold activities and forms of nature, a real knowledge of natural phenomena is unattainable. The questions of a young unspoiled

boy in the presence of natural objects show that he has an instinctive yearning to find this unity, and that it alone can satisfy his soul. All unconnected study of natural objects, as contrasted with study which seeks to find in them universal relations and so to unify them, makes nature and the objects of nature mere dead matter, and deadens also the enquiring mind.

Nature must be brought before the pupil as an organized whole in all directions, in a way similar to that which has just been generally indicated in one direction; for—equally with forms—forces, materials, sounds, and colours, have relations among themselves and with the whole world. All of them depend in their perfect development on that great natural object, the sun, which wakens and supports all earthly life. It seems, indeed, as if all earthly forms only proclaim the nature of sunlight, so eagerly do they turn towards it, inhale it, and hang upon it as a child upon the eyes and lips of a loving parent whose nature he shares. As the presence or absence of pure parental love affects the welfare of the child, so the presence or absence of sunlight affects the welfare of earthly things, which are, so to say, the children of sun and earth. Further, more exact knowledge of sunlight reveals energy in the same fundamental directions as in all earthly forms, so that knowledge of the one leads to knowledge of the other.

Father and son, teacher and pupil, then, wander together in one great world of nature. Let not father or teacher plead ignorance in these matters. Their task is not to communicate what they have themselves learnt, but to create new knowledge. Let them observe and think over their observations, and lead their pupils to do the same.

The unity of nature and the universality of law can be

grasped without the use of technical terms for things and qualities : accurate observations and descriptive naming in ordinary words suffice. Acquainting the boy with objects of nature is not a matter of teaching names or formulas of received opinions, but of putting the objects themselves before him with their salient characteristics, and causing him to observe the individual marks of each. Not even the name formerly given, or that commonly employed, needs to be known ; only clear perception and correct description of general and special qualities are required. A popular local name, a name suggested on the spur of the moment, or a descriptive phrase, will serve the purpose till we learn the accepted name. That will enable us to see our knowledge in the light of general knowledge and so to correct or supplement it.

From every point in nature a road leads to God. You cannot fail to see the general in the particular and the particular in the general if you but hold fast to the point and proceed in confidence along the road, gathering strength from the assurance that nature in all its details has a spiritual ground, and not merely a material cause ; in short, that it issues from the one living God its Creator and is conditioned by the necessary law that the temporal expresses the eternal, the material embodies the spiritual.

Be guided by the boy's questions, for they will teach you, and he will not be content with half-truths. It is true you cannot answer them all, for children ask questions which no man can answer. But either they place you where the earthly and the divine meet, or they simply go beyond your own knowledge and experience. In the former case, it is good to say so simply, and the boy's spirit will be satisfied. In the latter case, do not hesitate to acknowledge it ; but do not make it appear that the limits of your knowledge are also those of all human

knowledge, for that would crush and cripple the enquiring spirit, even if it did not kill it. In such a case examine your own life and compare it with the life around you, and lead your pupil to do the same. When the time is ripe both you and he will find the question answered. You will see clearly what you seek and gain that for which you yearn, you will rest in peace and joy and receive comfort and help in need, for you will see God clearly revealed in his works.

The knowledge of the nature and purpose of any thing begins with apprehension of its relations to neighbouring objects. Consequently the boy must study things in their natural connexion if he is to get a clear insight into them. And, of course, he is most familiar with the relations of things that constantly enter into his experience, such as those in the sitting-room, the house, the garden, the farm, the village or town, the meadow, the field, the woods, the plain. In the sitting-room, then, we find the starting-point for the ordered study of the world, which extends from that which is near and familiar to that which is more remote and unknown. On this principle the following course of instruction is based.

The teaching starts with pointing to particular objects and asking their names. Then follows the unifying question "What do you see in the room?" and the teacher having made a note of the names which one or more children have given, calls on the pupils to repeat them simultaneously. This repetition is required at every subsequent step. He next questions on relations, first that of part to whole, asking the children to name all the things they think are parts of the whole room—as walls, ceiling, floor, and so on; and then advances to the similar relation of room to house. Then, through the enquiry as to whether all houses have the same parts as this house,

by comparison of the uses and purposes of various houses, the question is reached of what parts are essential to a building if it is to be given the name of 'dwelling-house.'

Comparison of objects which are *parts* of a room with others which are merely *in* it leads to the idea of furniture ; and again, by comparison with things in the house but not in the room, to the more general idea of house-furniture.

By questioning on house, garden, stable, barn, etc., the relation of part to whole is then extended to homestead ; and that of furniture to implements, or movable objects that belong to garden, etc. Then the homestead is similarly shown to be, with other homesteads, shops, church, etc., one of the parts that compose the village, and the village to be surrounded by a district in which are found plains, mountains, valleys, meadows, streams, ditches, and other natural features. This is the point from which geography, or the study of the earth's surface, originates as a separate subject of instruction.

Such an examination of the child's surroundings has the special advantage that it presents definite necessary points at which all the separate subjects of study branch out like boughs from a tree. True, the indication of the proper place is often as obscure as is the first sign of a new bud, and is apparent only to the thoughtful teacher who is intent on the requirements and relations of his subject. But if it be missed every later attempt to introduce that subject is artificial and uninspiring, as is abundantly proved by the experience of earnest teachers who have postponed the beginning of a new subject from its natural time to that marked out by custom. The determination of the starting-point of a new subject is, then, essential for living and vivifying teaching. When

it is found the subject develops independently according to the law of its own nature, and teaches the teacher as well as the pupil.

After this digression we will return to the course of teaching the children to observe the world around them. The objects to be seen in the district—such as trees, towers, rocks, springs, walls, woods, villages—are classed together as being similar. Then, by comparison of these classes, the more general grouping into natural and artificial objects is reached, and the pupils are called on to give examples of each. By further questioning natural objects are divided into animals, plants, minerals, and natural phenomena, such as lightning and thunder, and examples are given of each. Then follow observations leading to classifying animals according to whether they live on the earth, in field or forest, in the water, both on earth and in water, or in the air.

Classifications of plants, minerals, and natural phenomena are reached by similar investigations.

Then it is found that the place in which various animals live leads to their being more or less closely connected with the life of man, and so is reached the division into tame and wild animals. Examples of each class are found, and the uses of domestic animals are then compared and made the basis of a further classification.

Time of appearance is next considered, leading to such classifications as winter, spring, and summer, fruit ; spring, summer, and autumn, flowers ; spring, and summer, birds. Then by combining time and place, animals, and especially birds, are distinguished as resident or migratory.

In studying animals it is very important to consider their mode of life, thus reaching such ideas as carnivorous and herbivorous.

Here is the point of origin as a separate subject of

systematic study of nature, at first in description of external qualities, and later in discovery of the anatomical structure. Similarly, the earlier investigation of natural phenomena and of minerals offered the point of departure for physics.

Later on, natural history and physics deal with outward resemblances and differences, with causation, and especially with the logical classifications to which these lead; and with the study of those of the external characteristics which most truly reveal the real nature of the objects.

By ascending in the way we have indicated from the particular to the general, and then descending again from the general to the particular, and proceeding throughout by observation of surrounding things, the course of instruction is like life itself; and it makes it possible to reach the limit of the knowledge possible at each stage of the pupil's development.

The works of man—such as houses, streets, bridges, ploughs—are distinguished according to their origin, constituent material, use, and purpose. By combinations and comparison of these the pupils see the distinguishing features of villages and towns, of private and public buildings; and these latter are subdivided according to their functions.

Then, from the work the teaching passes to the workmen, and classifies these according to the kind of work they do, the place in which they do it, and the kind of material they employ. Then the products of their work are classified on the basis of their own qualities, as, for example, their material and their uses. A consideration of various tools follows.

Public buildings, which were before distinguished only by their appearance, are now examined from the point of view of purpose, and classified as town-hall, church, school,

etc., and the official titles of those who work in each are taught. This leads to classification of towns.

Lastly, the questioning is directed to bring out the general characteristics and common purpose of all productive human life, as exemplified in the family and in every wider human community.

The family is shown to be the most effective instrument for preparing man to fulfil his destiny of rising to clear apprehension of his divinely given nature and expressing it in his acts. But it is not sufficient by itself, as no single family can possess all the requisite means. Hence, union of families is needed, and the final point is reached that only the whole of united humanity can fully attain the highest end of human endeavour.

Thus the pupil is led back to the point from which he set out—his family. But he returns to it with enlarged powers of observation and thought, with a deeper and truer knowledge of himself.

This first course of instruction has been indicated in some detail in order to lay stress on the necessity for all teaching both to start from the pupil and his intimate surroundings and to return to them. It is hardly necessary to remark that the answers to the questions about the functions of the family and the human race, already indicated as coming last in the course, should not be expected to be full or properly connected, even from pupils of somewhat advanced age. But the ideas should be awakened, and an early age is fitted for this.

So, too, it goes without saying that, though instruction should throughout be related to the boy's surroundings, yet applications that lie outside his experience should by no means be excluded. Our intention was simply to indicate how the study of nature and of the whole world of things, when it advances in accord with the true law

of its own development, includes everything in an undivided unity. Similar relations may be found in the more complex pursuits of man, as, for example, in commerce. The more difficult it is to lay them bare, the more essential it is to hold fast to the assurance that they exist; for only from them can we rise to the higher forms of unity. For it is obvious that the spread even of material civilization brings to the inhabitants of out-lying districts knowledge of things new to them; and that clear apprehension and control of the higher relations of life and of nature are becoming more and more what they ought to be—a task for the whole race of men.

Nor did we think it necessary to point out to thoughtful men—and no others should be teachers—the various growing-points for each subject of instruction; for instance, for physics, where the hidden energy manifests itself in natural phenomena; for chemistry, where the qualities of natural objects are changed through the influence of natural energies, such as light and heat, as seen, for example, in the changes of colour and odour in leaves during autumn; or for technology, where matter is found to act upon matter. It is better for each teacher to find these for himself, for that will make his knowledge more real and his teaching more stimulating. And there is no reason why any thoughtful teacher should be unable to do this, if he yield himself trustfully and humbly to be led by the spirit of God which works in every man. Even the most learned man learns afresh when he teaches repeatedly even the simplest thing. From what else could a teacher draw the supplies of that courage which all too often fails him in the face of obstacles which arise unnecessarily, simply from prejudice and defective insight? So we may at once answer the objection that a boy of six to eight, or a little more, such as is here in

mind, cannot be expected to have so detailed a knowledge of things, which even grown-up people seldom possess. The answer is that he should not have it ; it is to come to him gradually in the course of instruction. That it does so come has been shown by repeated experience. At the same time, such a course so stimulates the boy to observe the things about him that very little of importance escapes his notice, and so he finds at later stages the confirmation of earlier teachings. Thus he early learns what his destiny demands—to observe and to think. Moreover, like all human beings, a boy knows more than is ever clearly before his mind.

To a possible further objection that such a course would, at too early an age, remove the limitations natural to the boy and make him vain of his manifold knowledge, it may be answered that such knowledge, when in necessary living connexion, induces modesty, not vanity ; for by teaching the boy to think it teaches him how little he really knows.

It is, however, impossible to meet all conceivable objections. So we will leave the course to the consideration of each teacher ; though much might still be said about its importance. If rightly understood, it can be carried out successfully even in the lowest schools. For in a simple way it early makes man the centre in which all that is presented to his apprehension is connected together, and thus induces reflexion and leads to understanding of the nature and final purpose of all things. This, no matter by what formula it may be expressed, is the ultimate aim of all instruction.

To be in touch with nature in the open air is of the greatest importance to the young. The effect is to ennoble and strengthen, and to give life a higher significance. So, little walks and rambles are of high value as

means of education and instruction. They must be undertaken in the spirit of the harmony or living unity of nature, and in the perception that it necessarily results from the nature of life and energy that multiplicity has its origin in unity, complexity in simplicity, greatness in impression in what is seemingly small. Hence, all boys are eager to hasten forwards on their excursions, so that they may quickly apprehend a great whole ; for this adds interest to the finding of details, even though the whole they have grasped be great only relatively to those details.

These walks and rambles should lead the boy to perceive his surroundings as a whole and to feel that nature, too, is always a whole. Unless this is secured he can derive no spiritual benefit from those surroundings. They will deaden not vivify him, impoverish not enrich his life. Just as man inhales health with the pure air which he treats as part of himself, so he should look upon the nature around him as one with him, and breathe in from it the divine spirit which dwells in it.

The boy, then, should early see the objects of nature in their true relations and original connexions. He should explore from beginning to end his whole valley and its accessory dells ; he should trace the stream from source to mouth and try to account for the different features which mark its course ; he should ramble over the mountains noting how the side ranges branch out from the main chain ; he should climb to the highest points so as to get a comprehensive view of the entire district ; and by actual observation he should learn the mutual relations of mountain, valley, and river. He should see the products of mountain, valley, and plain ; of earth and water, in the place where they originate ; he should find in the higher lands the storehouse of the boulders, stones, and rubble,

which he has seen on the fields and in the rivers. In such walks in the country the boys should observe how animals and plants live in their natural surroundings ; how some seek light and warmth, and others lurk in the cool, moist shade. They should note carefully the effect which place of abode and food seem to have on the colour and even the form of animals ; that, for instance, caterpillars, butterflies, and other insects resemble in colour and shape the plants to which they may be said to belong. They should notice also the protective value of this resemblance, and how the higher animals may almost be said to avail themselves of it intentionally ; that, for example, such birds as finches build nests which can scarcely be distinguished from the surrounding leaves and branches. They should observe how colour varies with hours of greatest activity, contrasting the bright hues of butterflies which flit about in the sunshine with the grey tint of the twilight-loving moth.

Such personal study of actual things, and not mere verbal descriptions of what is outside the range of living interest, is calculated to awaken in the boy, dimly perhaps at first but with ever-growing clearness, the glorious conception of the unity of nature. But not only nature but man in true connexion with nature is presented in these walks. In later years man's social relations, his character and modes of thinking and acting, his manners, customs and language, will need attention, but these matters are beyond the grasp of young boys.

MATHEMATICS

Man can find no more secure and unifying centre, no surer guide, in the search for the unity of nature—and such centre and guide he must needs seek—than mathe-

matics. For the very name 'Mathematics'—or Theory of Knowledge—implies that it is all-embracing and exhaustive in respect to human learning.

Through centuries it maintained its foremost rank, and in our days, when its supremacy seemed to be threatened, it has burst forth with a glory greater than it had yet known. For mathematics is the embodiment of law and obedience to law.

As mathematics is the outcome of pure thought, and yet finds confirmation in material phenomena, so it is inherent both in man and in nature, and connects them. For man finds in his own thought those same relations which in the multiplicity of external phenomena seem to be independent of him. Hence comes the possibility of interpreting natural phenomena by the laws of human thought formulated in mathematics. And, thus, mathematics appears both as connecting knowledge and as, through its own power, originating knowledge. It is an ever-living energy, continuously evolving new power in constant union with the advance of the human mind in the apprehension of the unity amid diversity of nature; not a self-contained set of dead mechanical formulas, separately discovered and arbitrarily arranged in a series. And this, because it is the visible expression of human thought. So mathematics is neither foreign to life nor simply abstracted from life; it is the expression of the essence of life, and, therefore, can only be known in and through life.

Like thought and the laws of thought, mathematics, though in appearance starting from diversity of phenomena, always has a reference to a remote and obscure inner unity, and so really advances from unity to diversity. Consequently, all mathematical forms should be regarded as originating in the properties of the sphere and the

circle, and the sphere itself as a self-evolved expression of unity. They should, then, be recognized as necessary products of a self-determined energy issuing from a central point equally in all directions, not as the products of arbitrary, external, causes. Hence, they are not independent of each other, but essentially connected ; and though instruction must start with individual figures, yet these should always be referred to this living unity, which pervades them as a kind of soul.

Mathematics expresses the nature of space, and so sets forth its properties and relations. As it is grounded in unity, it is itself a unity ; and as in it we find manifoldness of direction, shape, and extension, so it follows that number, form, and magnitude, are a mutually conditioned three-fold unity. But, as number expresses the very nature of manifoldness and the directions of energy which are its condition, it is not a dead external addition but the product of living laws, grounded in the nature of energy itself. And as, further, form and magnitude can only be explained by manifoldness, it follows that knowledge of number is the primary essential for knowledge of that three-fold unity.

A knowledge of number, therefore, underlies a knowledge of space. But space itself is far from being dead and fixed ; it also owes its existence to the constant functioning of self-determined energy. And, as space thus results from the primal law of all existence and is conditioned by it, it follows that the general laws of space underlie not only all spatial phenomena but the laws of thought themselves, and the apprehension of them.

Mathematics should be treated more physically and dynamically, as the product of nature and energy, than is customary. Then it will become far more instructive

and productive than is now suspected to be possible, not only in the knowledge of nature, especially in all that bears on chemical relations, but also in the knowledge of the essence and modes of activity of man's spiritual life—of the laws of thought and feeling. This is especially true of the study of curves, and of all that relates to the sphere.

Education of human nature, then, without mathematics, or at least without a thorough knowledge of numbers supplemented by some little occasional study of form and magnitude as its necessary condition, is but a feeble patchwork, and one which fixes absolute limits to that culture and development for which man is destined, and to which he is called. But, since man cannot divorce himself from the innate yearnings of his spirit, he attempts either to transcend these limits or, weary of fruitless endeavour, to cripple his own spiritual energy. For the human spirit and mathematics are as inseparable as are the human soul and religion.

What has already been said has shown clearly the development of number, its abstraction from objects, and the acquisition of the power to count, at least up to ten or twenty. Frequent concrete use of number soon brings home to the boy the need for a more comprehensive understanding of it, and he welcomes arithmetic as a separate branch of study. This, then, agrees with the general rule that no new subject should be studied till the need for it is felt, and the pupil has at least a vague feeling of how it is based on former knowledge which shows the way in which it will be used.

Number, as multiplicity and magnitude, shows at the first glance that, like many other objects, especially those of the natural world, it has a two-fold origin—an outer through accretion, an inner through growth. It resembles the things of nature, also, in passing away, vanishing, and

coming to nothing. This also may come to pass either as destruction from without or, as it were, dissolution from within. But wherever there is beginning and ending, increase and decrease, there is also comparison. This also has two aspects—comparison according to an externally visible law, and comparison according to an intellectually grasped inner law. Arithmetic, therefore, deals with synthesis, analysis, and comparison, of numbers, each according to both an outer and an inner law.

All instruction should not only confirm the boy's early feeling that conformity to law is common in mental life, but establish the conviction that it is universal and necessary. Consequently, the teaching of arithmetic should constantly fix his attention on the laws of number, and make them prominent and clear. This is of as great importance as is practice in rapid grasp of numerical relations. Neither should be overshadowed by the other ; the boy should work quickly with numbers, and should clearly understand their relations. As in all instruction, so here, it is essential to induce clear comprehension of relations through individual building-up of numbers, repeated practice in application of them, reviews of the whole, and emphasis of special points by means of discussion.

Our treatment has made obvious what the course of instruction should be, and there will be no difficulty in elaborating it in harmony with these principles. The following are given only as indications :

(1) The work should be based on previous knowledge by practice in counting forwards and backwards from one to twenty, both without and with the omission of some of the numbers.

(2) The series of numbers should be represented and observed as a whole. The pupils should count the num-

bers from one to ten, representing each by a corresponding number of short vertical lines. Then the connexion between each number and its name should be fixed by exercises.

(3) Exercises should be given with the object of distinguishing between odd and even numbers. Here attention should be called to the important law both of nature and of thought that between two relatively different things or ideas there is always a third term which stands between them as a connecting mean, as here, between even and odd numbers there is a number—*one*—which is neither ; just as, in form, the right angle is the connecting mean between acute and obtuse angles ; and in speech, the semi-vowels between vowels and consonants. First, all the even, and then, all the odd, numbers should be represented by series of lines, first by the pupils on their slates and then by the teacher on the blackboard, and each should be named.

(4) Exercises should follow on the development of numbers by addition, or accretion from without. First, *one* is added to each of the first ten numbers, giving the numbers two to *eleven* ; secondly, *one* is added to each of the even numbers, giving in every case an odd number ; thirdly, *one* is added to each of the odd numbers, giving always an even number ; fourthly, the other numbers, *two, three, etc.*, are added to each number, and the general law is deduced that the addition of two odd numbers gives an even number, that of two even numbers an even number, and that of an odd and an even number an odd number. Then the additions should slowly and methodically be extended to three and more numbers, the sum never exceeding *thirty*.

(5) Similar exercises on compound numbers should follow, each number in the series being regarded as a unit

and analysed as a number of *twos*, *threes*, etc. ; *e.g.* one *two* is neither an odd nor an even number of *twos*, two *twos* is an even number of *twos*, three *twos* is an odd number of *twos*, etc., each combination being represented by separate but adjoining groups of lines.

(6) Then should come representation of numbers in all possible forms, *e.g.* *three* as one *three*, as one *two* and one *one*, as three *ones*, etc. Here the teacher will be guided by the law that each number gives twice as many combinations as that which precedes it ; or, that the number of forms of combination in any number is found by raising *two* to the power indicated by that number less *one* ; *e.g.* the number *four* gives $2^3 - 1 = 8$ such forms. But this law will not be reached by the pupils till a later stage.

(7) Subtraction, or gradual transition of a number to nothing induced by agency external to itself, is next to be taught in an analogous way, the processes being reversed.

(8) Multiplication, or the development of numbers from within, follows in a series of exercises leading to the laws that each number taken an even number of times gives an even number ; that each odd number taken an odd number of times gives an odd number.

(9) The squares and square roots of numbers should then be studied.

(10) All possible ways in which a number can be formed by multiplication should next be considered ; *e.g.* *two* can be formed by taking *two* once or *one* twice. This leads to the idea of prime numbers, which do not arise thus, but only through accretion.

(11) Division, or the dissolution of numbers from within, should succeed.

(12) Then should come comparison of numbers according to outer laws, and

(13) Comparison according to their inner law.

CHAPTER X

STUDY OF LANGUAGE

WHAT, now, is language, the third great factor in the life both of the boy and of the race, and how is it related to the other two factors ?

Wherever a true living connexion exists, there is found a relation analogous to that of unity, individuality, and manifoldness or diversity. This is equally true of language, of religion, and of nature. In religion, the spiritual yearning of man's soul towards unity is dominant. In nature and mathematics, the intellectual demand for understanding, with its primary reference to man's individuality, stands out most clearly. In language, the impulse of reason to find in man the unifying bond of diversity most evidently seeks satisfaction. Religion, Nature, Language, are, therefore, indivisibly united ; and the isolated and incomplete elaboration of any one of them produces a corresponding defect of spiritual development, and leads to the ultimate destruction of the unity of human nature.

Religion is the active manifestation of being, nature of energy, language of life. All have the same purpose—to reveal in outward form the indwelling spirit of all things, to enable the spirit of man to apprehend these manifestations, and to make evident the necessary and perfect harmony between spirit and matter. So that what is true of any one of them is, in its appropriate

form, true of the others. Consequently, what has already been said of religion and nature is applicable to language in a way determined by language. The delusion that they can be separated—that one of them, as language, can be truly developed out of vital relation to the other two—is one of the saddest misfortunes of humanity and one of the greatest hindrances to its progress. So, since man is destined to see and know things clearly, his education must embrace religion, nature, and language, in close and living inter-connexion. This, then, is the nature of language, and this its relation to man. How is this revealed in language itself?

Speaking generally, it may be said that language is the self-active revelation through an outer medium of what is in the mind. The speaker makes manifest what is in his soul, just as the bursting of a bud shows the blossom within it. Now, man's spirit is living energy, and consequently, language must be sufficiently mobile to express all the ever-changing phases of the spiritual life. This is only possible if it be audible. But, man is also part of nature, and his language, therefore, reveals nature. So, human language reflects the whole world of man's experience, both spiritual and material. But the spiritual is the eternal divine law revealing itself in the material. Language, therefore, must reveal this law, and so must conform to law. All the laws both of the spiritual and of the material world, as a whole and individually, must, therefore, inhere in language and find expression in language.

Language, like mathematics, is two-fold, belonging both to the inner world of spirit and to the outer world of matter. As a product of man himself it springs directly from the human spirit and expresses it, just as nature expresses the spirit of God. The question whether,

besides this, language is imitative of nature, is resolved by the consideration that the same divine spirit and laws are operative both in man and in nature. So language expresses both man and nature, and reveals the spirit of God which is in both. From the standpoint of nature, language is energy raised into life ; from that of man, it is the human spirit raised into self-consciousness. Language, therefore, is essential to man as a spiritual being destined to know himself.

It follows from the two-fold relation of language that both physical properties of life and mathematical properties of motion belong to it. So in its ultimate elements—sounds and the letters that represent them—it expresses both the fundamental properties and relations of nature and the workings of spirit.

Inadequate as is our knowledge of the phenomena of language, yet it is sufficient to show clearly that even in its smallest parts language is pervaded by a spiritual life. So we cannot avoid the conclusion that in every language—and above all, in German—sounds and combinations of sounds express definite, fixed, and necessary, mathematical, physical, and psycho-physical, laws ; that a definite object, viewed in a definite relation, must be represented by a definite combination of sounds, and can be represented by no other, so that each word is just as necessary a product of such determined sounds as a chemical compound is of the elements of which it is composed. In other words, sounds in their various combinations picture the objects of nature, the forms of spirit, ✓ and the most essential relations of these as they are apprehended personally or locally.

Little consideration of the universality of law, both in the natural and in the spiritual world, is needed to convince us that conformity to law marks the forma-

tion of words in German, even though we can say little about it in detail, especially in the inert forms of written language. This might deter us from asserting it. But we are like one who loves music, but does not know its laws, and still less has power to apply them in musical composition, yet who feels them in every great work from which he derives pleasure. So, too, our ignorance of physical laws does not affect their reality.

It is the same with the laws of the German language, and the yet subtler laws of the formation of its words. Because a German speaks his mother-tongue from infancy, the laws of the production of the 'roots' of its words are not perceived. Hence, the language seems to him a heterogeneous collection of precious stones and beautiful flowers, which can be put together to form jewels or bouquets. But just as a musical composition is evolved from simple constituent notes, organized matter from primary substance, shapes from directions of forces, so in language words are evolved as pictures of things and as expressions of ideas. The sound-elements of words, represented in writing by the letters, are, therefore, not dead things, arbitrarily associated to make words, but indications of original and necessary primary ideas. Consequently, they are significant, and unite only in accordance with necessary laws.

Every object, attribute, and relation, appears as a complex idea produced by the fusion of certain fundamental simple ideas, through whose composition the word is formed. Thus, for example, words beginning with *fr* have as their one basic idea, spirituality revealing itself in very active manifoldness. On the other hand, those beginning with *fl* show a more uninterrupted inner activity. Both groups indicate spirituality through the letter *f*, while *r* expresses diversity and *l* constancy. Generally,

vowels express the inner spirit or unity; consonants, material individuality; and semi-vowels, external phenomenal diversity. Of the German language we can say with certainty, even from a superficial study, that *u* represents the idea or nature; *e*, the real life; *a*, space; *i*, the middle; *o*, the complete in itself; *au*, external manifoldness; *eu*, internal manifoldness of life; *ei*, inner unity of self-sufficing life; *m*, outer material; *n*, reality; *s*, retirement into itself; *z*, division; *h*, general spiritual life; *d* and *t*, solidity and limitation.

Such indications of the nature of language show how important it is that it should be pure, and also that it is impossible to acquire it in an arbitrary and mechanical way. It is not here sought to give a systematic view of these laws, but only to bring them to the boy's notice, in confidence that he will soon find for himself more than we have indicated. What has been said must, however, suffice to call attention to the mathematical, physical, and psychical, attributes of language, by which alone it can reflect truly both the spiritual and the material world.

These qualities of language are to be seen first in German, our mother-tongue, but they are also to be found in the cognate languages, Greek and Latin, in their own individual forms. Thus such a consideration reveals between German, Greek, and Latin, the relationship of soul, life, and body.

If we taught words more uniformly in connexion with real observation of things, not only our children but we ourselves would gain a far clearer insight into language than we now enjoy. Then language would be for us a living whole, not a merely mechanical whole, and would itself draw us to a yet further study of reality. It would be once again the living offspring and producer of life,

whereas, by mere external study, it is constantly brought within danger of death.

Among the various points in connexion with language not yet touched upon, the law of rhythmic movement deserves special consideration. It is found throughout—in the composition, as well as in the combination, of words—and testifies both to the spiritual origin of language, and to its conformity with the law of nature. It is the universal expression of the life of language, and is, therefore, part of its original nature and as inseparable from it as is life from the things it represents. Consequently all early speech expressive of life is rhythmic, and this the more assuredly in that, in youth, both the individual and the race more clearly discern the spiritual life of the world. So, even now, the speech first spoken to the child should be rhythmic, as was the first speech of the race. Only by awakening in children the inner life of language, of observation of nature, and of feeling, can we raise them once more to true spiritual life. The way is easy. All that is needed is to let them live their own natural lives, and to remove obstacles and dangers from their path.

One who listens to the speech of children naturally brought up will soon be convinced that even the simplest expression of their feelings has some rhythmic quality. Such children are few; but they might be more numerous. Children in whom this tendency has been checked or suppressed cannot be expected in later years to appreciate poetry and nature. Then the unhappy child is drilled in mechanical tricks of recitation, and when, whether in vain assurance or in trembling timidity, he 'says his piece' it is hard to decide whether child, teacher, poet, or hearer, is most worthy of pity.

Though nature and life appeal early to man, their call is

so subdued that the untrained ear of the child while hearing them cannot understand them or translate them into human speech. But the first recognition that the self is distinct from its surroundings is quickly followed by a longing to understand the life and language of the external world, and particularly of nature, and to take it up into the self's own life.

Seasons succeed each other as regularly as do the times of the day. Spring with its buds and shoots and blossoms fills the boy with gladness and life; the blood flows faster, the heart beats more strongly. Autumn, with the falling of its brightly tinted, scented, leaves fills him with longing and anticipation. The hard but bright and unchanging winter calls forth courage and energy, endurance and self-denial, and so fills his heart with a feeling of joyous freedom. He hails the first snowflakes even more jubilantly than the first blossoms, because they contain the promise of soon flying on smooth skates and sledges to his goal. All of these are symbolic of the future life as yet slumbering in the soul, and, rightly understood, become angel-guides through life. Ill is it, then, to lose them; to allow them to dissolve into empty mist. What is there for us in life if our childhood has been starved of the living hope and faith that lift life into consciousness of our nobler selves? In these alone are the inexhaustible fountains of energy, courage, and endurance, in later life.

But it is not only that nature and life speak to man. He also would express the anticipations and feelings they arouse in him, but he cannot find words for them. These should then be given him as his soul needs them.

Again, the relation of man to man is neither as external as some imagine, nor as easily communicable in its spiritual essence as others believe. It is full of deep and noble

meaning, but its gentle harmonies must be awakened early, though rather indirectly and, as it were, reflected in a mirror, than directly presented in reasoned speech. A direct statement fetters and represses the spirit; it drills the child and makes him a puppet. But the indirect suggestion—as in a little verse without an explicit ‘moral’—gives the spirit that freedom without which it cannot grow, always provided that the boy’s bodily life is in full accord with his spiritual life. The more infrequent this may be in a boy’s life, the more assiduously should it be tended and fostered, even in those parts of school instruction which are most remote from life.

Let us enter a schoolroom where instruction in this spirit is given. Twelve or more merry boys of six to nine years of age are gathered together and awaiting a lesson—as they call it—in singing. Their teacher has been absent during the afternoon, and on entering he several times wishes them “Good-evening” in song. This unexpected musical greeting so touches a chord in their inner life that it fills them with pleasure, joy, and laughter. The teacher asks whether they will not respond to his greeting, and sings it again. Most reply by saying “Good-evening”; some say “Thank you”; a few chant “Good-evening.” These latter he addresses specially, and asks them to sing the greeting, and gradually he induces all to do this in their own varied ways. The instruction proceeds, by expressing in song, in the same antiphonal way, the feelings aroused by the seasons, depicting some present natural phenomenon as “The winds are sighing in the trees.”

This instruction aims at once at developing ear and voice, and at expressing the feelings aroused both by word and by musical tone.—If to-day the actual condition of things is the same as it was yesterday, the instruc-

tion begins and proceeds as it did then. After a time one of the boys merrily asks "Are we not soon to have a little song about the sunshine?" This, of course, expresses his longing that the sun should again break forth after the long continued rain and mist and wind. The teacher responds to this feeling and sings "Bright, sparkling, sunshine, return to us soon"; and joyously the boys sing it together after him.

This illustration has been chosen because it is by no means the most promising for our purpose. Rain, unpleasant autumn days, wet and cold evenings, do not readily call forth the feelings. The morning, the spring, a walk in the bright spring-tide, a rest on a grassy slope, do this more readily. But after such instruction has aroused expectation, the boys will all the more eagerly welcome the first fine day, when they will see the fields covered with their glistening snowy garment, or the first clear, starry evening when all is bathed in bright moonlight. There are many suitable collections of songs and short poems from which the teacher can select, and if they are not sufficiently simple in expression and sentiment a thoughtful, earnest, teacher can himself interpret in appropriate words the impressions of nature and the feelings they arouse in his pupils. There is also no lack of expressive poems descriptive of the life of the child, and of animals, the relations of man to his fellows, and the emotions and aspirations of the young.

But it must not be forgotten that this instruction—if indeed it can be called instruction, seeing that it is the expression of the child's own spiritual life—must grow out of the child's own experiences. The feeling must be there before an attempt is made to give it expression in song. This is what marks off such instruction from the mechanical teaching of little songs, entirely external to

the child's experience, and which, therefore, neither arouse nor stimulate his spiritual life. So here again, what was said about the learning by rote of religious forms of words, especially in early years, holds good.

Observation of nature and of the external world concentrates attention on the appearance of things as wholes and on their general relations, especially those of space. In this, language, as a mode of representation, plays only a subordinate part ; for man can regard things and their relations without the help of words. But in linguistic instruction language is brought into the service of observation, and is made to give what proof is possible that the pupils have rightly observed and apprehended the objects and their relations. Exercises in language, then, start with actual objects, but treat them in connexion with the impressions they make on the senses ; they are mainly concerned to give accurate verbal descriptions of these. So, while observation is primarily occupied with nature itself, the related exercises in language deal before all else with its portrayal in speech, but always in intimate relation with reality. Observation asks of a thing "What is it?" Practice in language asks "How can it be named?" As observation considers the thing simply as a thing, so exercises in language consider how the impressions it makes on the senses may best be indicated in speech. This leads directly to a third field of enquiry—that of the nature of language, without regard to the things it indicates, but simply as a product of the union of the spirit of man with his organs of speech. Exercises on this deal with the structure of language but should be based on exercises which are concerned with its utterance.

Complete instruction in language, therefore, involves three things : first, observation of objects in the external world which are its sensuous material ; secondly, observa-

tion of objects and speech in connexion with each other, thus passing from the object to the impression it makes on the mind ; thirdly, observation of the nature and structure of language itself without reference to the things it designates.

The course of instruction in observation of things has already been indicated ; that in speech should be planned on the following lines, beginning with sensuous observation and advancing to intellectual perception.

The teacher begins by asking the children to name some of the things in the room—mirror, stove, cupboard, etc. Then “ Could other things be brought in ? ” “ Yes. ” “ Could we bring as many things as we please into the room ? ” “ No. ” “ Why not ? ” “ Because there would not be room for them. ” “ Why not ? ” “ Because each thing takes up space. ” This he asks them to illustrate by examples, and then returns to the general question, “ What is meant, then, by saying that each thing takes up space ? ” till he gets the answer “ That where one thing is or acts another cannot be or act. ”

Questions are next asked to make explicit to the children that things are perceived through the senses. Then the senses are enumerated, and the things around are referred to them through something each *does*, as “ The mirror hangs, the boy speaks, the bird sings, the knife cuts, the sun shines. ” So it is brought out that the activities of some things are perceived chiefly by sight, of others chiefly by hearing, and so of the other senses. Special attention is then directed to the sense of touch, and by feeling visible things it is seen that the things perceived by touch may also be perceived by sight.

Then instances of rest and motion are examined in a definite order : first, those which are fixed, as “ The house, or the post, stands ” ; next those which are at rest, as

“ The water stands ” ; then, those that lean or are supported. In all these cases it is found that the whole activity is internal ; there is no external motion. Corresponding states in man, such as, resting, dreaming, thinking, are then mentioned. Forms of motion are next examined in an analogous way, and cases are cited first of things which show external and progressive motions—as running, flying ; next of things which are visibly in movement but do not pass from place to place—as boiling, heaving, ripening ; then of communicated progressive motion—as pulling, riding, lifting ; then of separating activities, as cutting, breaking ; then of uniting activities, as binding and weaving ; then of formative activities, as modelling, painting, and writing ; then of activities that can only be seen, as shining, sparkling ; then of such as can only be felt, as hurting, heating ; then of such as can only be heard, as singing, whistling, laughing ; then of general activities of nature, as storm, rain, and wind ; then of objects of which the activity is chiefly internal, as love and hate ; then of reflexive activities, as to cut oneself, to wash oneself ; then of activities restricted to man, and their peculiarities.

It is next made clear that objects impress the senses by their qualities as well as by their activities ; that the inkstand, for example, is *round*, and *made of lead*. Other examples of round things lead to consideration of analogical uses of the word, as when we speak of “ a *round* number.” Then the roundness of the circle is distinguished from that of the sphere, and examples of each are found. From these the teacher proceeds to cylindrical, oval, elliptical, triangular, and other shapes, so as to unite them all under the general idea of *shape* or *form*.

In a similar way, broad, narrow, thick, etc., are classed as impressions of *size* or *extent* ; others as impressions of

number ; of *surface* ; of *material*—as wooden, leaden ; of *cohesion*—as hard, solid ; of *light* and *colour* ; of *odour*. Then the analogous use of the terms to describe moral qualities is illustrated.

The consideration of material surroundings showed clearly the growing-points for natural history, physics, and chemistry, as separate subjects of study. Exercises in language which set out from observation of material objects, especially those of nature, and describe clearly the impressions those objects and their reactions on each other make on the mind, lead to those subjects with facility proportioned to the fullness and accuracy with which the causes and conditions of phenomena have been understood and expressed in words. The interest aroused in the study of the physical and chemical phenomena will be the greater the more thorough this preliminary instruction has been. Because these sides of nature and language, important though they be for man, are little prominent in every-day life, the need for emphasizing them in early instruction is increased, for otherwise no foundation is laid for future study of those sciences.

The investigation of number, form, and magnitude, is a direct offshoot from this instruction. For unless the ideas of these be grounded in observation and understanding of the relations of space they can never be used freely and effectively in later life.

To return to the course of instruction in language. We said formerly "The bush is thorny" ; now it is to be rendered "The bush has thorns" ; and other examples of the same relation, in which one thing *has* the other thing, are to be gathered. Then the boys are to be led to say *where* one thing has the other thing, as "The tree has leaves on the branches." Next they name things that are *at rest on* other things, as "The picture hangs on the

wall," and then relations in which one thing *moves towards* another, as "The bird flies to the tree." These relations may then be compared, as "The book lies in the cupboard ; the book is put in the cupboard."

In dealing with such relations the instruction should always advance from the simpler to the more complex, and should lead to a comprehensive description of all the matters actually investigated.

We now turn to a different side of the instruction in language—to exercises which deal with it as a material in which ideas can be represented. The purpose of these is to attain knowledge and power to use this material, and recognition of the manner in which, by the use of his organs of speech, man creates it. Hence, these exercises take the word simply as a word, and without reference to what it implies. This leads to the connexion already indicated between things and their properties on the one hand, and the root-words which represent them on the other ; that is, to the study of the structure of words as a separate branch of instruction. The first point to be noted is the number of syllables in the word. This leads to the examination of vowels, as the universal elements in syllables. The vowels are classed as simple or complex, and the latter are sub-divided into primitive and derivative. This naturally brings us to the mode in which the organs of speech are used in producing each vowel-sound, and gives occasion to show that purity of intonation depends on the correctness of this use. The consonants are then taken up, and classified first into mutes and sonants, then, according to mode of production, into nasals, labials, linguals, dentals, palatals, gutturals, etc. Lastly, the various amounts of force required to produce the different consonants are noted. In this way the pupil learns that good articulation and pronunciation

depend on correct use of the organs of speech, and sets himself to acquire control of them. He gains also the consciousness of the spiritual connexion between the activities of mind, body, and nature; for language as mental product in bodily guise sets before him satisfying pictures of his spiritual and bodily experiences. So this course of instruction, in its search into the formation and development of language as material of expression, is again seen to be a living whole.

Some suggestions may now be given for the conduct of such a course. The pupils, in imitation of the teacher, speak words of one syllable, then words of two and more syllables, carefully separating the syllables and marking each by a single clapping of the hands, and following the utterance of the whole word by as many claps as it contains syllables. This clapping of the hands is important to make the length and articulation of the word spatially visible. For in all instruction it is an imperative requirement that everything the pupil is to learn should be connected with something opposite to it in character; that is, that the immobile should be connected with the mobile, the dead with the living. So the word which is the audible, the living, should be connected with space and visible movement, spiritual with bodily activity. The more marked is the contrast which is yet related to the nature of that to which it is opposed, the clearer and more lasting is the impression made on the pupil. In the present case the clapping of hands by the pupils is especially important, because thus the real and audible size of the word will be sensibly perceived.

To fix attention on the vowels, monosyllables ending in them should first be pronounced by teacher and pupils successively, and after each word the vowel-sound should be uttered by itself. Then words that begin with this

sound, and afterwards, words that contain it, are found ; and it is noted that there is no syllable without a vowel. The classes of consonants should be similarly treated. Finally, tables of the various classes and groups of sounds should be made, and many exercises given on them.

WRITING

The next matter to be considered in this course of instruction in language is the art of writing, by which audible momentary sounds are made visible and permanent.

Through religion, nature, and language, the boy or man who has been brought up naturally finds himself in the midst of all life. A life, ever growing in wealth, develops within him, so richly that his soul can no longer hold the fullness and abundance of it, but, as it were, overflows. Each new gain threatens to oust its predecessors, and he finds himself unable to retain in his memory the mass of facts that have come into his experience, and still more how they were related to each other in time and place. Now this excess of the real over the remembered life comes before him as a kind of independent and external second life, which he recognizes as his own. And this is as it should be. For now he feels an imperative need and an irresistible yearning to snatch the evanescent blossoms and fruits of this rich spiritual life of his from oblivion, both for his own sake and for that of others, and therefore, to record in permanent symbols his external life in its detail of time, place, and circumstance. Thus writing is developed in each individual in the general historic way, and in harmony with the general line of development of the human spirit. Again we find that the characteristic laws of the

development of the human race are also those of the growth of the individual. At the same time we see how picture-writing is the inevitable outcome of overwhelming richness of bodily life, and idea-writing by conventional letters of a similar wealth of spiritual life. Only from such excessive richness of life could writing be born, and even now the genuine feeling of the need of it can only thus arise in the child. So, from this point of view, also, the call to parents to make the spiritual lives of their children as rich as possible, not so much in variety as in vital significance, is seen to be imperative. If this be not done, and if writing be not the response to a felt need, the mother-tongue becomes something external, alien, and dead ; as, indeed, it actually is to many. Only if once more we follow the great highroad of human advance will the vigorous early life of the race return to us in and through our children. Then the spiritual capacities and powers which are now enfeebled will be once again in their full vigour the endowment of man. And why should we not endeavour to walk this road again, seeing that every boy tries to lead us back to it ? Here we see a boy painting a picture of an apple-tree on which he has found a nest with young birds ; there another sketches the kite which has risen so high in the air. What person who has had to do with children has not been implored " Give me some paper, I want to write a letter to father or to brother " ? For the child is impelled by the energy of his spiritual life to desire to communicate it to those he loves. This is not imitation, for he has seen no one writing. But he knows how his longing can be satisfied, and the strokes he makes are to him signs of words, although to us they seem a mere confusion of similar marks. Here the need for writing in symbolic letters is manifested, as in the former cases of sketching and paint-

ing was shown the impulse towards picture-writing. Some boys of this age, indeed, are so rich in spiritual insight that it would be possible to make them feel the need for writing, and to lead them to discover both its pictorial and its symbolic forms quite in accordance with the historical evolution of the art. It is well known that older boys often invent a writing of their own. We should begin in a similar way, and here, as in all instruction, start from a need really felt by the boy. Indeed, unless this desire be aroused, teaching is profitless and unsuccessful. Here is the origin of many of the defects of teaching. We try to teach without first making our pupils feel the want of our instruction; indeed, after crushing the need that was beginning to be felt. How in such a case can our teaching be of any avail?

As writing is the outcome of an abounding energy of life and of the desire to hold fast the richness of its experience, the written characters themselves cannot be arbitrary signs, but must be connected in some way with the ideas indicated, and with the formation of those ideas. Though few records are extant of the earliest forms of writing, and though the laws of their formation are obscured, yet what remains seems to establish indubitably such a connexion. For example, the letter *O* as self-contained in form, stands as representative of the idea of self-limitation; the letter *S*, as endeavouring in shape to run back into itself, of that of return to self.

By 'writing' in early instruction is not to be understood the art of penmanship, but only the skill to represent the momentary sounds of speech in visible and permanent forms. These forms must be always the same, not only that they may raise in the minds of others the very words and ideas they were intended to symbolize, but also that they may, at any future time, recall those

same words and ideas to the writer. This is reading, of which we shall speak later.

The important thing in the early teaching of writing is the selection of the forms of the letters. They must be easily distinguishable, and at the same time their constituent parts must be connected with each other. Present-day alphabets, whether printed or written, show such connexion but imperfectly. Much more evident was it in the early Phœnician alphabet—built up of combinations of squares, circles, diagonals, and bisecting lines—from which the early Roman alphabet was derived. It may be that this visible connexion does not altogether correspond with the original significant connexion. That does not matter. Until the time when this true connexion shall be discovered it shows the pupil that such connexion is possible. Enough of this. The Roman capital letters do show this external connexion and unity, and starting from these the instruction should advance to the cursive script.

In using the Roman capital letters for the first exercises in writing it is essential that the boys should be able to recognize them readily, and, after practising vertical, horizontal, and oblique, lines of various lengths, to form them quickly and with ease. The instruction should be closely connected with the exercises in speech. The boys should be made to feel the need for written symbols by being led to see that to knowledge of the letters must be added skill in making and connecting them. The teaching should deal with the letters in the order of the simplicity and resemblance of their constituent forms. After a new letter is learnt it should be written in as many combinations with letters already known as yield real words. From words of one syllable the pupils should advance to longer words. When they can readily repre-

sent each word they speak or even think of, the teacher should either select words for them to print or allow them to print words to express little thoughts of their own.

This they should do on slates, and, after it has been examined by the teacher, copy on paper. In this way boys whose work has been seen by the teacher will be occupied while he looks over that of the others. It is hardly necessary to add that the actual corrections should be made by the pupils themselves, under the teacher's direction. It is also useful here, and in similar subjects, for a more advanced pupil to be placed next to one who is less proficient, that he may help his weaker comrade to correct his work. This has a two-fold advantage—a material one, as the pupil is always kept busy, and a spiritual one, as the weaker is incited to emulation of the stronger. On his own side the stronger pupil has the benefit of testing thoroughly what he has learnt and what he can do, and so of becoming clearly aware of his own deficiencies. For it will often happen that the teacher will find mistakes which the pupil who examined the work either overlooked, or did not recognize as errors.

Instruction in this subject is complete when the pupil can represent in written print all the things, actions, and thoughts, that enter into his life. For the representation of his spiritual life—the co-ordinating centre of all his experiences—has then become possible to him. And the aim of every stage of instruction is to attain unity of life by making possible the representation of some external whole in such a relation to the spiritual life.

The rule that the pupil should make on paper a corrected copy of what he has printed on a slate as the expression of his own perceptions and thoughts has the further advantage of quickly leading him to feel the need for a more rapid mode of writing. Here is, then, the point

where writing in current script appears as a separate subject. For, as has been said, each new subject must start from the pupil's need, and must satisfy it.

Current instruction largely fails to meet these requirements, and one great need of the whole human race is that which we are striving to satisfy—an art of instruction which should replace present practice by one which by its very nature must be better.

READING

Reading and learning to read also stand in an original and necessary relation both to mankind and to the learner. Reading is the outcome of the feeling of need to make what has been written down audible again to oneself or to others, and so to re-vivify it.

Through the arts of writing and reading, which necessarily presuppose some knowledge of language, man raises himself above every other known creature and draws nearer the goal of his destiny. Through these arts he first attains personality. It is the endeavour to acquire them which makes the boy a pupil, and brings the school into existence. The power to write makes possible clear consciousness and knowledge of the self, for it enables man to set his own nature before himself, as it were, and so observe it; it connects him clearly with past and with future, with the near and with the remote. So it puts within his grasp the possibility of attaining the highest and most complete human perfection. It is the first great accomplishment of free and spontaneously active consciousness.

Since, then, writing and reading are of such high importance for man, the boy must have attained some strength and insight and some possibility of self-con-

sciousness, and must have felt the need and desire for those arts, before he begins to acquire them. If he is to learn them profitably, he must already be something more than he is clearly aware of being, not simply striving to become aware of more than he has yet come to be. Otherwise, all the knowledge he gains will ever be hollow, dead, empty, mechanical, and alien to true life. For if the root be dead and mechanical, how shall true life and activity spring from it; how shall man accomplish his destiny to attain real spiritual life?

Reading is the converse of writing. Writing and reading are opposites, like giving and taking. Just as taking presupposes a giving, so that, strictly speaking, we neither should nor could take, nor even know how to take or how to use what had been taken, unless we had previously given, so reading must follow writing.

The course of instruction is determined by the nature of the matter, and is easily indicated. For, in the first and less important meaning of the word, the boy can read already. Reading was a second activity, inseparably connected with the printing of every word, and which was especially prominent when he copied later what he had produced. After this, reading, in the ordinary meaning of interpreting printed matter, is easily acquired; and what on the old method took more than a year and was burdensome to the learner, on this plan is mastered in a few days.

The first step is to secure that the letters of the printed matter are recognized as equivalents to the Roman capitals hitherto used in writing. Here it is especially important to bring out resemblances in formation, and to indicate how the small letters may have developed from the capitals.

As a connecting link between the writing of a definite

script and the reading of printed matter, it is helpful to let the boy copy on a slate, in his accustomed printed capitals, passages from his reading book, and then compare the two, in this way reading both.

The point which the instruction should reach in this stage is that the boy should be able to read clearly and without mistakes in pronunciation and enunciation, and to phrase the passage according to its sense. When he can do this he has the power to assimilate what others have thought, and to see the effect on others of what he himself has thought and felt. By these means he can raise himself to every stage of the development demanded both by the general nature of man and by his own individual nature. The higher elocutionary reading, which as it were pictures the matter read, is proper to the next stage of development.

STORIES

Man understands other things and forces and other lives only in so far as he understands himself and his own life and powers. Consequently, though the feelings, desires, and thoughts, of a young boy are vague and obscure, and little more than impulses, yet they are the most important of his experiences. But he can never understand his own life by comparing one moment of it with another, for nothing can be known without comparison with other things, if possible somewhat unlike. The necessary points of comparison are given by the lives of others. In them the boy can see, as it were, an image of his own active life, and so can measure its worth. The perception of his own active life either crushes the boy or carries him away with irresistible force, unless he can understand its origin, its nature, and its outcome. But this the

boy instinctively seeks ; it is the innermost need of his soul. Here we find the chief reason why he has such a love for stories, legends, and fairy-tales, especially when they have a semblance of truth, or are at least within the limits of probability which he recognizes. The power which is as yet but a tender bud in his soul is presented to him in story and legend as a full-grown plant, decked with beautiful blossoms and fruits never before imagined. The more strongly marked is the comparison with himself, the more is his heart enlarged and uplifted ; the more is his spirit strengthened and made conscious of increased freedom.

As the boy delights in the deeper spiritual significance of colour more than in the mere hues, so in legend and fairy-tale it is not the gay phantasmagoria of persons and incidents that his soul loves but the spiritual life they portray, which serves him for a measure of his own and gives him a vision of a life, free and unfettered, ever active in virtue of the laws of its own being. Though the story may present strange men and strange lands, other times and other manners, yet in it the hearer seeks and finds an image of himself, even if no one else could say "That is like you."

Do not most people know that quite little children beg their mothers to tell them again and again simple stories with which they are already perfectly familiar ? Even boys of the age we are considering do the same, and will eagerly drink in every word of a companion as he repeats at their request an oft-told tale.

It is not spiritual indolence which makes an active boy an eager listener to stories. Note how intent he is. Almost can one see the spirit of the listener stir under the words of the effective story-teller, as if he would try its strength. Here is the proof that in the story itself is a spiritual life

fuller than his; that it is this, and not the gay and changing shapes, that captivates the boy and calls to his spirit. That is why eye and heart open to the real story-teller, as blossoms open to the sun. Spirit breathes spirit; power sees power, and, as it were, drinks it in.

The telling of stories braces the mental energies and tests feeling and judgement as well as intelligence. So, to tell stories well is by no means easy. The effective teller must be filled with the spiritual life of the story, and let it so work in him that it finds full and un mutilated expression in his words. Yet he must himself stand above the life he portrays as real. It is this standing above the life, and yet understanding it and being stirred by it, which makes the effective story-teller. This is why good story-tellers are usually either quite young or advanced in age. The mother, who lives only in and with the child and thinks only of tending his life, can tell stories well. The father, occupied with business cares, can seldom so tell stories as to attract a child and strengthen and ennoble his life.

The story-tellers to whom a boy best loves to listen are brothers or sisters only a little older than himself, still largely spectators of life, unbound by its conventions and unhardened by familiarity with its stern realities; the aged grandfather, who, after long experience has freed himself from the hard shell of life; the old and faithful servant, content and peaceful in the consciousness of duty done. No explicit 'moral' need be drawn — no practical application made. The life itself as told makes a deeper impression if left to speak for itself. For who can say exactly what were the young hearer's spiritual needs?

Children are not told enough stories, and those they are told have for heroes mere mechanical marionettes.

A good story-teller is a precious and blessed gift to the boys whom he delights, ennobles, and influences. However much we adults may esteem and respect him, it is in their smiling faces and welcoming shouts that he finds his true reward.

But boys of this age should not merely listen to a story ; they should also connect with it some bodily productive activity, for only when the spiritual life which has been aroused can find external expression has it any permanence.

Further, the story will be most effective if it refer to incidents in the boy's daily life, and develop trivial events so as to show how peace and prosperity of life may depend on occurrences which at the time seemed insignificant. Similar experiences of the hearer or his friends are brought into the story, and the boy, stirred by the reality of the events, listens intently, and finds in each such story a new treasure and a new conquest, adding to his own life whatever it offers him of instruction and inspiration.

CHAPTER XI

STUDY OF FORM

IF we envisage from a single point of view what we have said about the dominating purposes of human life we see clearly that they are of three main classes. Men seek peace and spiritual vitality; or they try to know and understand the world around them; or they aim at expressing what they feel in their own souls. The first endeavour is predominantly towards religion; the second towards the study of nature; the third towards the observation, development, and expression, of the mental life of thought and feeling. If we put together what we have said about the last, it will be seen that mathematics mediates between man and nature, for it is concerned with the hidden laws of phenomena which are apprehended only by the understanding, and so, as it were, expresses nature in human terms. Language, on the other hand, is a means of expressing outwardly what the mind has perceived, and so is most closely connected with the reason. Thus, there is still wanting for the complete expression of man's nature a mode of representing the spiritual life itself. This is the function of art.

All human ideas but one are relative, and have only a relatively exact application. For all ideas are inter-related, and are distinct only in their terminal points. Therefore, art, on one side, touches the understanding through mathematics; on another, it connects with the

reason through language ; on a third, though it expresses ideas, it is one with the representation of nature ; on a fourth, it merges into religion.

But when art is considered as that part of the general education of human nature which leads man to appreciation of the artistic these relations must be ignored, and art regarded simply as representation of idea. At once it is evident that the artistic representation of ideas must take various forms according to the materials used for the purpose. Such material may be invisible but audible motion, or sound, which perishes as it is produced ; or visible—as lines, colours, surfaces ; or fully extended in space—as mass. Here, again, we find that our ideas are only relative, and that there are countless transitions and combinations.

Art, as representation through sound, is music, especially song ; as representation to sight through colour, is painting ; as representation through formed mass, is modelling and sculpture. The last two have a connecting link in drawing, or representation by line, which thus mediates between representation by coloured surface in painting, and representation by solid mass in modelling. Because of this intermediate character, drawing, as we have seen, appears very early in childhood. But the impulse to representation through painting and modelling is also found in childhood, and is particularly strong at the beginning of boyhood. This shows clearly that the artistic sense and the tendency to artistic representation are innate, and should, consequently, be carefully cultivated, at latest from the early years of boyhood. Thereby the boy will be trained to understand and appreciate works of art, even though his energies are not mainly devoted to art with the view of becoming an artist. A right school education, indeed, will save him from claim-

ing to be an artist when he has not the true artistic soul.

Singing, painting, and modelling, then, must early be cultivated by the school as essential elements in a complete human education, and not be left to chance or fancy. This, not with the aim of making some sort of an artist out of every pupil, still less of producing artists in general—which are, indeed, mutually destructive aims, though, in a sense, the former is true of every one—but with the simple and explicit intention of securing for each pupil a complete development of his nature, that he may be conscious of its wealth of interest and energy, and, in particular, may be able to appreciate true art.

Poetry, like drawing, though in another way, is also a connecting link. As growing out of speech and yet representing the spiritual realm of ideas it belongs to art. In all—whether it be life or religion or art—the ultimate aim is the representation of the true nature of man. Christian art most nearly realizes this ideal, for it seeks to represent the divine in and through man. Man is, therefore, the highest object of human art.

BUILDING AND MODELLING

Man advances towards the goal of his destiny more by the exertion of his own innate powers than by what he derives from his environment. Both experience and history teach us that the men who have done most for the good of mankind have done it far more through their own originative ideas than through the knowledge they had acquired. Every one knows that by teaching well we increase our own knowledge and insight. And generally, it is a natural law that strength and energy are developed by exercise. In life, knowledge acquired in

our own active experience is more living and fruitful than that conveyed only by words. So the union of modelling with thought and speech is far more illuminating and inspiring than is mere oral teaching. Hence this subject of instruction is necessarily connected with observation of things and exercises in language.

The only real purpose of a boy's active life is to use and adapt material things in accordance with his own ideas, and thus to make the activity of his body a picture of the life of his soul. So in the forms and shapes he gives to matter he sees his own spirit, his own ideas; not forms and shapes alien to himself and imposing themselves on his mind. The aim of instruction is always rather to bring more out of human nature than to put more into it. For what mankind has been able to receive it has received already, and every human being must, just because he is human, develop according to the general law of humanity. What further possibilities there are in human nature we do not know, for they are not yet the possession of mankind. But we do know that human nature is capable of unending evolution, as is the spirit of God.

The picturing of the life of the soul by manipulation of material things should begin with efforts to give a spiritual meaning to solid shapes. This is obvious in the development of the race. But the form of the solid with which this representation of the spiritual in man should begin must imply and express the laws and conditions of spiritual development; that is, it must be based on the right-angle—as the cube, the beam, and the brick.

The formations conditioned by such material are either by addition from without—*i.e.*, building; or by development from within—*i.e.*, modelling or shaping.

Building comes first with the child as with the race. The first experience the boy gathers in representing by

building what he sees around him is the importance of the vertical, the horizontal, and the rectangular. The ideas of equilibrium and symmetry come next. Thus the power of building rises from the simplest wall, constructed with or without binding, to the most complex architectural work which is possible in the given material.

It is far less attractive to the boy to lay tablets side by side than to pile them one on the other—a fresh instance of the all-sided energy of the human spirit revealing itself in bodily activity. The putting together of lines appeals to him still later. So, the whole course of human advance is from the completely material to the spiritual. Later, drawing takes the place of laying sticks ; painting that of placing tablets ; modelling that of building with cubes and bricks.

In spite of this obvious progressive development, the value of such exercises to children has been questioned. Yet no one would have reached his own point of maturity had not providence led him along this road, whether he recognizes it or not. Each man should review, at least in his own life, the works of the race, so that he can understand them and they no longer appear to him as dead masses void of meaning. For the same reason he should review the lines of advance of mankind. Despite this, it is said that the training of the boy need not include such activities as those we have considered. It may be granted that an individual boy may not need a particular exercise. But he surely needs such qualities as energy, keenness, initiative, and decision, and these he will gain. Nay more ; for as the most terrible poisons of boyhood are inertia, apathy, want of resource, and brooding, so these, their opposites, are a sure prescription for assuring mental and physical health, domestic and social welfare.

The course of instruction, here as elsewhere, is deter-

mined by its own nature, when once we have found its true starting-point, apprehended its contents, and grasped its purpose.¹

DRAWING

Though we may not know why it is so, or, indeed, even be aware that it is so, we refer all apprehension of form to the vertical and horizontal directions as norms. We constantly, though often unconsciously, imagine these lines as drawn across our field of vision, and so we get a network of such lines, which grows clearer in proportion as our apprehension of the forms of the things we are observing becomes more precise. But since form is a manifestation of spiritual energy, and the recognition of this is a part of man's destiny to find the spiritual in all things, therefore, his education must teach him not only to apprehend form, but to represent it. And since the consciousness of form advances with the grasp of right-angled relations, therefore, the visible representation of right-angles as a means of developing the apprehension of form is based both in the nature of man and in that of this subject of instruction.

If vertical and horizontal lines be repeated at regular intervals there results a network of equal squares. The representation of forms of objects in the field of vision, especially on an enlarged or reduced scale, is made most easily with the aid of such squares; and this gives a further justification for their use, were such a justification required. The use of the triangle as a help to the representation of form follows from that of the square.

A second requirement of the instruction is that the representations should be easy both to produce and to destroy. This is best satisfied by slate and pencil. So

¹ For Froebel's later development of this see Part II.

a slate ruled with a network of equal squares is the first requisite for this instruction. The size of the squares is by no means a matter of indifference. If the lines be too close, all the representations will be too small; if they be too wide apart, the representations will be too large to be grasped as wholes. The distance of one centimetre is the best.

The first business of the instruction is to practise the boy in representing clearly on such a slate the fundamental relations of form, and so attaining an exact apprehension of them. The course of instruction is connected with previous observations of things. In them, the boy learnt to distinguish such relations of length as equal, double, three-fold. So this branch of instruction grows out of those already considered.

The course may be thus indicated:

The teacher draws a line on one of the vertical sides of a square, saying "I draw a vertical line," and requiring the pupils also to state what he has done. He then tells the boys to draw a series of such lines and to express in words what they are doing. These questions and answers should never be omitted, for thought, representation, and speech, should always go on together. By this drawing of lines the pupils gain strength and freedom of hand as well as train their powers of perception and representation.

Since comparison of the unlike aids perception and memory more than does comparison of the like, vertical lines of unequal length should be drawn side by side, accompanied by the usual description in words. This instruction, however, does not pass beyond the five-fold difference, because in the numbers up to five all later numerical differences are given, or at least implied. For the relations of numbers are odd and even, prime, square,

and cube numbers, and nearly all these are found in the first five numbers. Moreover, six is only three doubled, or two trebled, and seven is analogous with five. So that these and subsequent exercises in representation need not pass beyond five.

In these arrangements for comparison of lines, variations may be made to meet the needs of individual pupils, especially those who are weaker than the others. For example, either end of all the vertical lines may be placed on the same horizontal line, or the shortest or longest line may be drawn either on the right or on the left of the others. Such variations also help to avoid boredom. Their use, however, should be left to the teacher's discretion.

Horizontal lines are to be similarly dealt with, and then vertical and horizontal lines should be combined and compared. At first equal lines are made to meet in a point, forming a right angle, and then parallel and shorter lines are drawn inside this angle. Afterwards the horizontal line should differ in length from the vertical line with which it forms the right angle, one being made a definite multiple of the other. This relation should be examined from both sides and expressed in words—the longer line as a definite number of times the shorter; the shorter as a definite part of the longer.

Then comes the drawing of squares and oblongs, the latter being carefully distinguished according to the relative lengths of the vertical and horizontal sides.

Then follows the drawing of diagonals with the object of securing clear perception and accurate representation of inclination. In considering these in relation to the vertical and horizontal lines, descriptive terms will be found useful. For example, the diagonal of a square has a 'full slant,' that of an oblong one side of which is twice the length of the other has a 'half slant,' slanting lines

which are nearer the horizontal than the vertical are 'falling,' those which are nearer the vertical than the horizontal are 'rising.' First should be practised full slants drawn outwards from a point, then drawn inwards towards a common meeting-point; then half slants, and combinations of these, the falling lines being taken before the rising lines. At first the containing squares and oblongs are drawn, but gradually these are omitted. When symmetrical figures formed by slanting lines round a common centre are reached the instruction has developed to the stage of invention, which is also a new phase of development in the pupil.

We call invention every spontaneous visible representation of an idea, which, though it is materially conditioned, is spiritually necessary, as may, indeed, easily be recognized by the pupil himself. A course of study on the invention of figures should, however, be postponed till the next stage of education.

Such a course of instruction appeals at once to the senses and through them to the power of thought, and to manual activity. It trains the eye to recognize form and symmetry, and the hand to reproduce them; and both these play an important part in practical life.

PAINTING

Every one who is not an utter stranger to children is aware that they all desire to know about colours and to make use of them. This is particularly noticeable in the years of early boyhood, though in different degrees in different boys. The general need of the child to exercise all his powers in every possible way accounts for this. But there is an even stronger reason—that light and colour are inseparable, for all colours are conditioned by

amount of light. And both are closely related to spiritual activity, and to all that elevates and gives variety to life. Does not earthly light point to that heavenly light in which it has its source and its existence ?

Though he may not be definitely conscious of it, the impulse of the boy to busy himself with colours may well be an unformulated hope to learn through colour the true nature of the sunlight it embodies and which gives it its high significance. To the objection that it is the variety of hues that attracts children, it may be replied that these are, after all, only different effects of the one cause—light. Nor is it mere variety that satisfies the boy in colour, or in anything else ; it is finding the common nature which unites the diverse ; that is, detecting the spiritual in the material. The boy seeks unity in life and in the expression of life. So he is stimulated by bright colours to seek the unity which connects their diversity, and that he may the more easily succeed in his quest he likes to see them arranged in combination.

However distinct form and colour may be, they are to the young boy as inseparable as are body and life. The apprehension of colour seems to come to the boy, as it possibly did to mankind, through form ; and, on the other hand, form is thrown into bold relief by colour. Therefore the apprehension of form and colour should proceed together from the first. But, since form and colour first appear to the boy inseparably, though each strengthens the impression made by the other, it is necessary that instruction which aims at developing the sense of colour should observe three conditions—that the colours used should be simple and definite, and numerous enough for the representation of the object to be copied ; that they should be as pure as possible and correspond as closely as may be with the tints of the object, especially if it is

a natural object ; that the colours should be apprehended in their natural relations, especially in their contrasts and approximations.

Instruction in colour should also be connected as closely as possible with language. Names should be given with perfect precision, first to the pure colours, as red, green, yellow ; then according to intensity, as bright, dark ; then to particular colours, according to their composition. In the case of these last a double comparison should be made, first of the colour itself with objects in which it is most frequently found—as rose-red, sky-blue ; secondly with other colours, as blue-red, yellow-green. Generally, distinctive names should be given to colours in direct connexion with familiar natural objects ; when they are well known in this reference, they may be transferred to other examples.

At first but few distinctive names should be given, but they should be constantly and exactly used. So, too, the boy should have but few paints, and those quite distinctive in tint. The pupils themselves can afterwards obtain the secondary colours by mixtures of the primary colours.

The objects to be painted should not be too small, especially at first, and should be connected with the study of nature. As a rule, they should be such as are common in the neighbourhood—leaves, large flowers, butterflies' wings, birds. The colours of quadrupeds and fish are too indefinite for our purpose. The attempt to represent natural objects in their true colours should focus attention on colour itself, and the pupils can be led to this through such of their own questions, as "How shall I paint this flower?"

The more colour is attended to and apprehended independently of objects, the more will it be pictured for its

own sake, though still in representative forms. When the process of abstraction is complete the form recedes into the background. For many reasons the form of representation begins again here with the network of squares. It is best to use vegetable pigments.

For instruction in colour a hundred opportunities can be found in every child's life, into which it will be taken and in which it will itself live. Each group of children necessarily presents its own starting-point. The course may be thus indicated :

About a dozen boys of suitable age are gathered round their teacher, say on an autumn day, and one of them has expressed a desire to paint. The teacher agrees, and leads them to choose as the objects the bright red and yellow leaves which all around are falling to the ground. The teacher gives each boy an outline drawing of a leaf which he has previously prepared, and by questions leads the boys to select the right-coloured pigments. These he now distributes, and the colours are correctly named. As the aim is not so much to make a true representation of the object as to gain knowledge of pigments and skill in using them, no attempt is made to give the drawings more than approximately correct hues. As yet, to keep within the outline, to lay on the colour evenly, and to hold the body in a suitable position, so that arm, hand, and finger, can move freely, are the important matters. As each pigment requires special treatment, a pupil should be kept to one till he can use it easily.

From leaves we proceed to such large flowers as show very few distinct colours, as daffodils and primroses. Simple flowers are preferable to double flowers, and they should be first painted in a front or a full profile view.

Throughout, conscious effort should be called for to

distinguish, name, and represent, colours exactly, though young boys will do none of these at all well. Still, interest and desire to grasp relations of colours are awakened, and so, little by little, colour is observed without regard to form. Then the pupil feels that he has neither enough knowledge nor enough skill to use each pigment effectively, and he desires to increase both. Here is reached the starting-point for instruction in the representation of colour as such, without reference to distinctive forms; that is, for painting in the network.

In these exercises the first thing at which to aim is covering evenly and with sharply defined boundaries areas gradually increasing in size. So, first one square, then two squares, and so on up to five squares, are coloured with each pigment, either in continuous rows of squares side by side or in interrupted rows of squares placed corner to corner. In this way the pupil gains familiarity with the peculiarities of the nature and of the use of each pigment. The exercises begin with the primary colours—red, blue, yellow, and following these the pure secondary colours—green, orange, and violet. The two series begin with red and green because experience shows that these colours are nearest to the boy, and so he likes to start with them.

In subsequent exercises two, three, and finally all six, colours are used in the two chief arrangements of continuous and interrupted rows of squares. The order of colours most consonant with nature is blue, green, yellow, orange, red, violet. The last step at this stage of development employs four groups of colours, similar to the groups of two lines in the drawing of lines. These, in accordance with the law of the material used, present the series of colours in all the directions given by the network with reference to one common centre. These groups, then, appear in two sets—one in which the

coloured rectangles are placed side by side, vertically or horizontally, and one in which they lie in the direction of the diagonals of the squares, which touch each other at their corners. In each set, again, there are two arrangements—one in which the various rows proceed from a common starting-point, the other in which they lie round a common invisible centre.

These four groups finish this stage of the course. The next stage—as in the case of the drawing of lines—would be the free invention of arrangements of colours, the study of intensities and tints of colours, and the study of natural forms and the representation of them in the network of squares.

GEOMETRICAL FORM

The observation of things around him and the exercises in language lead the boy, as has already been shown, to apprehension of form. But the forms of these things are so diverse and so difficult to analyse and define, that it is necessary to study objects in which form is simple; that is, those with plane surfaces bounded by right angles or equal angles.

Now, knowledge of line underlies all knowledge of form, and the forms are examined, above all, by reference to straight lines. Consequently, in the examination of the forms of objects, those with curved outlines are soon put on one side, and attention is first directed towards those built up on the basis of the straight line. For example, such things as the surface of a stove or the glass of a watch are curved in outline, but doors and windows have plane surfaces with straight boundaries.

Then objects and their parts and outlines are examined with respect to position and direction. For instance, the two long sides of a window-frame are parallel, and so

are the two short sides ; a long and a short side are at right angles to each other. Further material for study can be found in the various parts of a table, the sides, floor, and ceiling, of the room, and so on. Examination of these leads on to the study of simple straight-lined objects, such as cubes, prisms, and pyramids. When, through such exercises, lines as outlines are clearly grasped the need is felt for studying the relations of lines apart from objects. This begins with single lines. First are examined lines not touching each other, and classed as *parallel*, or running in the same direction, and *inclined*, or running in different directions. The latter are treated as those inclined at right angles and those inclined at other angles equal to each other. Throughout, an attempt is made to discover how the number, the situation, and the direction, of the various lines are related to each other. Secondly, are considered lines touching each other. Here the first point for consideration is the amount of convergence and divergence ; then, in how many points each line touches other lines ; lastly, whether the ends of each line are outside the various connecting points or meet in them. This leads naturally through the study of angles to that of polygons, and last of all comes the circle. The full development of these belongs to a later stage of education.

Throughout this stage there should be frequent drawing of the figures, and attention should be concentrated on the examination of actual forms and figures, not on the formulation of general truths. All complicated relations and complex inferences should be avoided, and each relation should be studied separately in as many simple combinations as possible. It should be noted that the study of lines of equal inclination leads from geometrical form to free-hand drawing.

CHAPTER XII

REVIEW

WE have given an outline of the aspects and conditions of human development through all the stages up to early boyhood. We have also dealt in a general way with the means by which this complete and soul-satisfying evolution towards perfection can be secured, and have noted how all are fundamentally connected, and how some branch out of others.

If we now survey this sketch we shall see that many forms of the boy's activity are as yet directed towards no definite end. His painting, for example, is not designed to make an artist, nor his singing to train a musician. The purpose of all such activities is simply the complete unfolding of the boy's nature. They give that spiritual food and air without which his soul would be weakened and dwarfed and cramped. For, as the irrepressible energies which God has implanted in man are many-sided, it needs manifold forms of exercise to train them. To repress any one of these innate capacities is to do violence to the nature of the boy. Still worse is it to try to graft another activity into the place of the one we have cut off, in the belief, it may be, that this will be better for his future life, for his peace of mind, or for his spiritual welfare; and so a service both to God and to man. But God neither excises nor engrafts. He develops, through ever higher stages of fruition, and in accordance with

laws which he has placed in them, the least and weakest possibilities. And to be like God should be the highest aim of all man's thoughts and actions, especially in his dealings with his children, to whom he stands in the same fatherly relation as does God to man. Surely it is time that in educating our children we remembered that, as the kingdom of God is spiritual, the spirits of our children—as of all men—form part of it, and so should bend our energies to the full nurture of their spiritual life. But this involves the nurture of the human life in which the spiritual manifests itself, for we may rest assured that whoever is rightly trained as a human being is trained for the fulfilment of all the demands of civil and social life.

Some may grant that our plans are good for little children, but reject them for their own sons as the ground that they are too old, as they are rapidly passing out of boyhood and must give their attention to studies that will be of direct service to them in the practical life they are soon to enter, when they go to help their fathers in business, or set out to earn their own livings. In many cases, doubtless, boys are somewhat old for what they yet ought to learn. But are they to be deprived of this training throughout their whole lives just because we neglected to give it them in childhood and early boyhood? It is futile to salve our consciences with the thought that when they are men they will have plenty of leisure to make up for lost time. Our own hearts and our whole experience assure us that at the most a very small part of what was lost in early years can ever be ours. Let us frankly acknowledge the gaps and deficiencies in our own spiritual lives. We may hold an important office, be successful in our profession or business, have tact and refinement. And yet we must be conscious that there are flaws in our spiritual culture, that the

defects of our early education are perpetuated in defects of manhood. So, if we really wish our sons to grow up into complete and competent manhood, and if they have not matured in capacity and knowledge in accord with their age, we must set them back—even though they be in the last years of boyhood—to do the work of earlier years, that they may do what can yet be done, and make up what may yet be made up. This may possibly delay their advance a year or two, but is it not better to reach a true goal later than a false one earlier? We would be at home in life, and yet we understand little of its real requirements; we would be clear-sighted business men, and yet we do not see what most concerns us. We boast of our experience, and yet we gather but little of the rich fruit it should yield; for we scorn to seek in our own youth example and warning which might save our children.

If we would condense into one statement all the gains brought by the developing education we have described, we might say: "The boy has attained consciousness of his independent spiritual self: he feels and knows himself as a spiritual whole." In him has been developed the power to grasp a whole both in its unity and in its manifoldness, and the capacity to represent by material means a whole with its parts rightly related, and in doing so to give expression to the unity and manifoldness of his own being. We see, then, even in early boyhood, the capacity to represent the indwelling spirit of God and so to fulfil the destiny of man. The stages which follow boyhood should be marked by increasing consciousness and insight, so that this capacity may become the skill of living a fruitful life of spiritual freedom.

PART II

THE KINDERGARTEN

CHAPTER I

THE FIRST PLAY

MAN'S nature demands that each of his actions, whether mental or bodily, should be in relation to a corresponding object in the external world. When no suitable object is found to satisfy this demand the instinctive craving for activity finds vent in fancy and fantasy. But to these possibility sets no limits, nor does reality impose on them any form. So, instead of strengthening the child's capacity to use the things about him to express his thoughts and feelings, they tend to weaken it.

But even more than the activity of limbs does the activity of thought require its complementary object. Hence, it is by no means a matter of indifference what object is given to the child as truly corresponding to the needs of his nature. Its choice should be determined neither by chance nor by caprice, but by a recognition of those needs. It should be complementary to that nature, and thus at once like it and opposite to it.

If we observe what objects the child spontaneously chooses as such complements of his activity we see that they are inanimate things, and yet, strangely enough, heavy things. He loves stone and wood best of all. A boy delights in carrying big, heavy, things, and prefers

them for playthings ; a girl makes of a boot-jack or of a piece of wood her favourite doll.

But weight, or the attraction of matter, is the lowest expression of energy, which is, as it were, the life of nature, and which in a higher stage appears as sensuous attraction, and in its highest and purest form as spiritual attraction, or love. This evolution is seen in every child, and it determines explicitly the kind of object that should be given to him when his self-activity begins to show itself, and when, how, and why, it should be given. It should correspond to the needs of his nature. But the child is a being, complete in himself, who experiences many contrasts in his life, which yet are harmonized because they are his. So he needs an object with corresponding features. As like himself, it must, therefore, be one of which he can in imagination make anything he will ; as unlike and complementary, it must be seen as an external means by which he can carry out the purpose with which he identifies himself.

This gives the characteristics of the child's first plaything, and shows the deep meaning hidden in his choice of stick, stone, boot-jack, piece of wood, bag of sand, or, in another direction, clay, mud, or sand-heaps.

But above all, for the freest exercise of his activity he prefers the ball, which can be shown to be to him the unifying centre and representative of all which he seeks as complementary to the impulses of his nature towards development. For in it he finds at once exclusiveness and a general representation of all things, rest and motion, generality and particularity, all-sidedness and singleness of surface, visibility and invisibility (for it has invisible centre and axes). So by means of the ball a child can represent outwardly many things which he finds

in his own soul as desires, ideas, or thoughts, and he can also imitate countless things that he sees around him. Thus the ball is at once a means of representing outwardly his inner life, and of bringing into that life by imitation the external world. This explains why the child so loves the ball as a plaything.

Play to man, especially in childhood, is a mirror both of thoughts and feelings, and of surroundings. In childhood it is emphatically a mirror of the innate need for life and occupation. So a plaything is any thing which is related to the child as means to purpose, and which, by creating pleasant anticipation, calls forth play in which he finds fresh and continuous pleasure. Play is, therefore, really the product of the connexion of related opposites—the free activity of the child and the mobility and consequent responsiveness of the object. The ball, then, by its manifold movements and free adaptability, is most richly related to the child's impulses towards activity, and so most easily arouses in him the pleasure of play, and is, consequently, his dearest plaything. Right up to the age of youth, especially in Germany, various games with balls are the favourite forms of play. But in this earliest stage we are concerned only with the ball itself in its simplest form and in its simplest relations. It may be free or attached to a string, and in each case it can be moved either freely and indeterminately, or vertically, horizontally, or obliquely, with reference to given surfaces. Here, as it were, it acts as guide into the world of things, tracing their outlines by its movements, and so representing them.

But the ball as a plaything should be considered not only in its shape and in such relations to things as have just been indicated, but also in its relations to the child himself. These may be found in size, colour, number,

material, and degree of hardness and elasticity, with which is connected tone produced by falling on a similar surface. In all these aspects the ball constantly enters into fresh relations with the child, but it must suffice here to give as an example some intimations as to colour. The child instinctively seeks other instances of each of his percepts, so that he may find in numbers a confirmation of the properties and truths he has found in one. It is of great educational importance that this desire for extension and increase should be rightly trained, or it may become a brutal lust of possession.

But mere plurality of a like kind neither does, nor should, satisfy the child. For both man and child should seek in the many the connecting unity when it does not lie on the surface as the bond which binds the manifold into one. With balls of like form, size, and material, colour best meets this requirement. And it does this most fully in the six (or seven, if we admit both a light and a dark blue) pure colours of the rainbow—blue, green, yellow, orange, red, violet. These appear as a beautiful compact unity, as the six (or seven) children of the light united in the prism or in the rainbow, the symbol of the highest peace between heaven and earth, between God and man.

Surely we should early and in a childlike manner prepare for the child the way to this peace. So let him be given, at first singly, then gradually in various combinations, balls of each of those six colours as playthings. The joy with which he receives them singly will be increased when they are given two at once—*e.g.* red and blue as opposed colours, or three at once—*e.g.* the three primary colours—red, blue, yellow, and the three mixed colours—violet, green, orange. Similarly, and quite early, the simple and natural putting together of two, three, or

four, balls into a heap will give him an anticipation both of forms and of numbers.

As the child grows older the balls should increase in hardness and elasticity and in the power of producing a tone when falling on a hard surface.

The ball is as important to the emotional and moral side of the child's nature as to the intellectual side. It is a kind of talisman or moral safe-guard. To give the child a ball to play with is to guard him against ill-humour and all the moral evils of which it is the root. It also protects him from his own desires and passions, for not only does it avoid awakening and feeding them, but, by providing occupation adapted to his needs, it strengthens those impulses to activity which are in harmony with the true laws of human life.

The ball, then, should be so used that it strengthens the whole nature of the child, exercises his bodily strength, develops the activity of his senses and his limbs, arouses and nourishes his attention and purposeful activity. The little babe early shows that he likes to grasp and hold all sorts of things, and if nothing else offers, he seizes on his own thumb, or hand, or fist. Give him, then, the ball to seize, to hold, and to grasp. This strengthens the muscles of fingers, hand, and arm, and develops them, first for freely handling the ball and later for effectively handling other things.

At first the ball seems to the child as one with his hand, and this is well. For so, by means of the ball, does all future knowledge of his surroundings grow, as it were, out of himself. The mother or nurse leads him to perceive that the ball is not part of himself by fastening it to a string, and pulling gently as if to remove it from his hands. As the mother tries to lift it, the child, holding it fast, raises his arm, and lowers it again as she relaxes

the pull. Both the feeling of putting forth strength and the actual movement give him pleasure, and at the same time the use of the arm produces skill, and arm, hand, and indeed, the whole body gain in strength.

This is the earliest play of the mother with the ball. A new game grows out of it when the ball actually escapes from the child's hand and moves independently and alone. Then he perceives that the ball he has grasped is now a freely-active something apart from him. So, by repetition of this game he learns to distinguish between being united and unity, between separation and separateness, between having and having had. With and from these distinctions begins the apprehension of thing, of space, and of time. Further, from the perception of being, having, and becoming, in connexion with thing and space, arises that of present, past, and future in relation to time. These nine new perceptions which open the gates of a new objective life, unfold most clearly through constant play with the ball.

To each of her silent actions the mother should attach the word, and so, as it were, fasten to a definite place the object which is only felt and seen, and the action which begins and ends. The connexion of the contrasted pairs of the silent and the sounding, the permanent and the transitory, the visible and the invisible, by developing in the child consciousness of the object fosters in him the growth of self-consciousness. And self-consciousness is essential to man. To become conscious of himself is, then, a child's chief task. But he is spiritually as much surrounded by language as he is bodily by space, things, living creatures, and air. So the life-giving word, or song, accompanying each activity and game helps to accomplish this task of attaining self-consciousness. Therefore, while she fondles him, the mother talks to her babesoon after his birth.

The play with the child and the accompanying speech should be as childish, motherly, and playful as possible, for it should express the immediate and personal unity of the mother's life with that of her child. This language, which the mother instinctively creates and which perishes as it is uttered, can hardly be fixed and represented by the printed page. But it may be noted that, in this first stage of the child's development, a swinging movement is indicated by a singing tone and so is most allied with the training of the feelings. This shows further that in the feelings are to be found both the starting-point and the central core of all education of children, though always accompanied by thinking and doing. Thought is shaped into deed and deed is explained and justified in thought, but each has its root in feeling.

To return to the play. The ball attached to the string is gently withdrawn from the child and dangled before it, the mother humming at the same time to suggest the movement: "Tick, tack"; "Here, there"; "Up, down"; "Left, right"; "In, out," etc. Or she lets it fall on a surface—"Tip, tap"; "Hop, jump"; "High, low," etc. Or she turns it or whirls it round by the string—"rrrr, round-a-round"; "lill-lill," (*i.e.* imitating the movement). Or she pulls it by the string—"Pull, pull"; or rolls it—"Roll, roll"; "There the ball runs," etc. Then she lets the ball roll away and carries the child to the place where it has fallen so that he can pick it up, and thus feel that his acts have consequences which he must either accept or rectify. Other plays are rotating the ball, hiding it in the hollow of the hand or in a box, with such sayings as "The ball is gone," "The ball is tired, it wants to go to sleep," and such associated suggestions as that "Baby is tired, he wants to go to sleep."

Next the games with the ball are directed to the

gratification of the child's impulse to see everything in each object. The dangling ball now becomes many things, as a bird, a kitten, a dog,—“ See how birdie flies backwards and forwards,” “ Look how pussy jumps up on the bench,” “ Hop! doggie skips over the fence,” “ The chicken eats the corn,” “ The miner goes down the mine,” and so on. So from this one object the child in imagination forms many. Even though he has never seen them and they are not even part of his surroundings yet they are brought before him by words. For as a thinking and judging being man has always the power to perceive things dimly before he gets to know them. The ball, as the type of the self-contained, represents everything which can be thought and treated as a whole. Other objects doubtless can give the ideas of being, disappearing, returning, seeking, finding, fetching, grasping, holding, rolling, and so on, but none gives so great variety of movements as the ball. It is this which makes it so excellent a plaything. But what has been done with the ball may be attempted with other things, such as an apple, a ball of thread, a key, a nut, a flower. So will these objects be brought before the child in different actions and relations, and thus his development will be broadened. But amid all such variety the ball remains the unifying and explanatory plaything through which comes understanding.

When the child begins to crawl the ball is given him to play with as he will. He is placed on a rug on the floor, and a ball somewhat larger than those with which he has hitherto played may be suspended above him from the ceiling, and thus incite him to learn to stand, and so strengthen the muscles of hip and thigh. In this play the father may well take part.

The ball shows the child unity amid variety and the

vital connexion between them. It presents content, mass, matter, space, form, magnitude; it has elasticity and consequently is capable of rest and of motion, and is both independent and self-active. It partakes of the general characteristics of all bodies, for it has colour, weight, and gravitation, and is capable of producing sound. Through quicker movement on a shorter string and slower movement on a longer string, it opens the way to the most important phenomena and laws of nature. So the ball as a plaything connecting parent and child places man in the centre of the universe. And it is never too early so to place him, that he may rest consciously in unity with himself and in harmony with nature and with life. But the ball does more. It also early gives a central core to the child's own life.

It has been seen that games with the ball are valuable to the child in his three-fold aspect as a creating, feeling, and thinking, being. It may now be noted that another whole set of games may in a way be called useful, because they are obviously related to actual working life. Yet another may be styled beautiful, as having no reference to anything outside themselves, and satisfying by their own harmonious variety and completeness. A third set attracts the child by their truth, because through them certain relations, qualities, and connexions, are made explicit, each of which was already implicitly felt in his soul.

So we see that this first plaything of the child leads him in harmonious development towards the useful, the beautiful, and the true. Parents have thus an early opportunity of noticing towards which of these their child predominantly inclines and so of avoiding a one-sided development, even as life, art, and science are not mutually exclusive.

The games with the ball further develop the child's mental power. They practise him in perceiving and remembering; they awaken the capacity to compare, infer, judge, think; they foster the feelings; in them speech is cultivated. So man, even when a child, by games with the ball is placed in the centre of his own life and of all life.

CHAPTER II

THE SECOND PLAY

THE whole activity of the child shows that he experiences a special joy when he passes from what has hitherto been given to him to that which is at once like it and contrasted with it. The saying—"The child seeks ever something new" embodies the same idea. But the opposite, and yet like, of the soft ball is the hard ball or globe. This, then, is the next plaything required by the child in the natural course of his development.

The globe is more perfectly round and smooth than is the soft ball, and so it moves more freely. On the other hand it is heavier, and therefore when at rest remains so more steadily. Because of its greater weight it makes greater demands on energy and skill. By the louder sound it produces it shows both its greater weight and the greater force required to move it. All this, as fresh proof of his increasing strength, adds pleasure to the child's games with the globe.

It is clear that this progressive presentation of playthings is in so many ways in accordance with nature, that it gives the true means of development. It is equally clear—and, indeed, is expressed in the phrase "in accordance with nature"—that the progression is not arbitrary, but necessarily determined, as it includes both likeness and contrariety, both progress and constancy.

The globe, then, is the second companion plaything

with the soft ball. It should not replace the ball, for the child loves both. Indeed, no new plaything should banish an earlier one. For the value of the former is intensified and made more definite by the latter. No doubt, the modes of playing—or occupations, as we may call them—with the globe are very similar to those with the ball, because the globe is the opposed similar to the ball. But the movements are more decisive and more definite than in the earlier games.

As each plaything is, in a sense, a complete whole, it has a definite part to play in the child's development. As the ball by the variety of its colours should train in harmony and concord, so the globe, especially in its many turnings and twistings, which yet all show the perfect globular form, should lead to a clearer apprehension of unity.

Again, while the ball especially exercises the powers of perception and so trains character, the globe by its various movements primarily trains body and limbs. We may here say, once more and once for all, that in games with this and all subsequent playthings, words, talk, song, and verse, should bring clearly to the child's mind, and in a way suited to his age, all that is being done, and thus facilitate his progress towards an all-sided development. Sound is to the child a still higher sign of life than is movement. So he loves to hear sounds and speech. Yet more does he long to be told about everything—how it lives and what is its purpose—especially how it is related to himself. By accompanying movement with speech, then, we make the globe a means of showing the relation between the plaything and the child's life. And this the more easily as playing with the globe develops the general capacity for hearing, and at the same time the first attempts are made to learn to talk.

Another point connected with playing with the globe should be noted. As the colours of the balls symbolized, as it were, the joys of life, forming a plurality united in the bond of a common nature, so globes coloured half black and half white represent the opposite poles of life—its light and shade, its day and night. As they are rotated, on the one hand the black dissolves into grey and that passes into white, while, on the other the white gradually darkens into black. These small and almost imperceptible changes add much to the child's pleasure in playing with the globe, and the symbolism of real life is so clear that the value of this means of aiding the development of children of every rank must be obvious to every unprejudiced mind. Moreover by these gradations of shade the relations of number, form, and rhythm are shown in a new light, even as the beauties of a landscape are brought out by suitable shadows.

What, now, is the necessary transition to the next plaything? The globe has but a single surface and is round. Its opposite must have corners and edges. This, then, is the contrast which must appear in the next plaything. But it must also show the needful similarity. The globe has three equal axes which cut each other at right angles, and these properties, as well as the contrasted ones just named, must be sought. These requirements are only satisfied by the cube. So the cube is necessarily the child's third plaything.

Though as solid bodies globe and cube are similar, yet in all that relates to form they are contrasted. While the globe can be regarded as the physical expression of pure movement, the cube expresses pure rest. The soft ball is the link which connects the two. For not only is it intermediate in mobility, but, when moderately elastic, it can easily be moulded so as to approach in

shape to the cube, and as easily be brought back to the form of the globe.

It follows that the globe and the cube in their contrasted similarity should be inseparably connected in play. They are related as are unity in concord to unity in diversity, or as feeling to thought. Since both these aspects of the developing life of the soul are early evident in the child, both globe and cube should be given him as play-things at the same time, though in the games with them they may be presented to him alternately. To give them separately would imply a wish to develop feeling and thought in isolation, or even the one at the expense of the other which is made subordinate.

The cube has many properties, and both presents a variety of appearances and gives scope for many modes of use. As having sides and corners and edges, it offers the greatest contrast to the globe, in which all the sides of the cube are, as it were, rolled out into one plane, and then drawn together into a point through the corners. The connecting link is given by the lines of the edges—each of which in the cube is capable of indefinite extension in two directions, while in the globe it returns into itself in a point.

The cube through its form, in the first place gives an idea of corporeal power, and leads to a knowledge of its own determinants—sides, edges, corners; that is, surfaces, lines, points—and of their various relations to each other in form, position, and magnitude.

The comprehension of the real nature of form, which involves magnitude and number as well as shape, is most important for life. So, too, is the ability to seize these relations in a rapid glance of the eye. But this only comes with long practice, so that to give attention to these properties early, and to develop the understanding of

them, are of great advantage for the whole of life. But man begins as a child with the apprehension of what is small and concrete. Hence the principle that the child's first introduction to form, magnitude, and number, should be through concrete things, and not through knowledge of abstract relations, is inherent in his human nature.

In the second place, therefore, the cube leads to a knowledge of number and numerical relations in a similar natural, pleasant, and concrete, manner as it leads to apprehension of form and magnitude. The cube, with its manifold numerical relations of sides, edges, corners, angles, etc., appears to the child as an entertaining master of counting. Here, again, reference may be made to observation of the lives of children.

This is especially necessary in the third aspect under which the cube should be considered—that of the varied and very characteristic appearances it presents as it is moved to various positions. Because of its variety, this is the feature of the play which most fascinates the child. But it is important also both to child and to adult on account of its higher significance. It proves that man is born to enquire, and that he should begin to do so while a child, and that, even in early years, he should learn to distinguish appearance from reality.

This by no means exhausts what may be drawn from the simple cube. Besides calling attention to form, magnitude, number, and variety of appearances presented by one and the same real shape, it leads the child, in the fourth place, through its pressure on the hand, through raising and lowering it with a string, to a knowledge of movement, and so to the fundamental laws of mechanics and of nature.

In the fifth place it draws the child through his imagination, which sees in it now a bale of goods, now a

chopping-block, now a stone garden-table, and many other things, towards many walks of life.

Here a remark forces itself to the front which might well have been made before, and which cannot longer be delayed, for it is of the first importance in reference to the whole play of the child, to his relation as a being at once sensuous and intellectual to his plaything, and to the enjoyment he derives from his play with it. It is this. The pleasure which the child finds in his play is much less due to what the plaything really is than to what in imagination he determines it to be. So we see the important truth that his satisfaction flows from what is aroused and developed in himself during his play, and in no wise from the mere plaything. Hence, irrespective of its appearance, the child most loves that plaything through which and with which he can shape and exercise most ; that is, call up in his imagination the most numerous, satisfying, and vivid, ideas and fancies, as if he really beheld them outside himself, even though in blurred and sketchy outline. It is this projection of his ideas outside himself, as complete, though it may be imperfect, wholes, which gives the play of fancy connected with imaginative representation such a peculiarly high value for strengthening and cultivating the soul.

The beginning of the play with the cube is to mark the contrast with the globe. It is set down firmly before the child, while a little verse in which " firm " occurs several times is said. The mother then takes one of the child's fingers and with it tries gently to push the cube, with a verse stating that the cube remains at rest and does not want to go ; until at last the cube does move, when that, too, is expressed in verse. This arouses in the child a wealth of various ideas : the quiet firm resting on a relatively large surface, the filling of space by each object,

the weight taking the form of pressure, the final victory of pressure and the moving of the body by means of a relatively greater force. The perception and frequent repetition of all these changing phenomena give the child in the second half-year of his life great delight, especially when the play is connected with little songs and verses ; such as

“The cube now rests on your dear little hand,
Press it, and hold it, and help it to stand.”

OR

“Grasp the cube and hold it fast
That it may not fall at last.”

OR

“See, the cube falls and now lies low,
For nothing held it from below.”

Next try to stand the cube on one of its edges, with verses expressing its instability. Then show how this can be overcome by propping it against another object, with such verses as

“The cube now leans against a wall,
And that is why it does not fall.”

Then attempt to poise it on one of its corners, and, placing a finger on the opposite corner, spin it round. In this way the child soon learns the conditions of stability and of easy motion, even though he can as yet describe neither in words.

All these exercises call the child's attention to the object as existing in space, to its position, to the fact that it fills space, and to the results which follow from this. But as yet the object itself has been noticed only incidentally. The next exercises are designed to draw attention to its form or shape. They are similar to those previously used with the ball which dealt with its exis-

tence and disappearance. Thus the mother conceals the cube in her hand

“Now the hand alone I see,
I wonder where the cube can be.”

This calls attention not merely to the fact that the cube occupies space, but also to its special form. For the child unconsciously compares the cube with the hand. But as this gives only a general idea of the shape exercises are needed to lead to observation of the parts. The cube is so held in the hand that only one surface is seen ; then two are disclosed ; then three ; and so on, suitable verses expressing each experience, while the child gently strokes the sides with his fingers. Number at this stage is expressed only by differences of tone for different appearances of the object.

In these exercises movement is only incidental ; their purpose is to make clear the size and form of the cube at rest. In the next set, movement is the prominent feature. The simplest exercise is the swinging of the cube by means of a string attached to one of its surfaces. Then the string is fastened successively to an edge and to a corner. Next a cube is taken with a hole bored in each of its three main directions. By inserting a thin stick into one of these holes the cube may be twirled round as on an axis, and various apparent forms succeed each other till at last the cylinder emerges. Each change is, of course, expressed in verse.

Then globe and cube can be used together. The globe easily rests on the cube, but scarcely ever can the cube be balanced on the globe. The former relation is an expression in material form of facile mobility, as the cube by itself expresses persistence and rest ; while the latter is symbolic of animation and life.

The globe and the cube stand as types with which

other things may be compared, and with which by representative imagination they may be connected. When ball, globe, and cube, are thus apprehended as types of all spatial objects, other things can be thoroughly understood. So, exercises with other objects—such as a book—which can be placed in three positions, giving views of back, end, and side, should follow those with globe and cube.

The law of mediation is the most important law of the world, of humanity, and of life in general. Now, the child, as sharing in all life through his membership of humanity, should from his earliest days be treated, developed, and educated, in accordance with the highest and most universal laws of life. But he himself is nothing but life, and his games and occupations are simply representations of life. Hence the principle of mediation must be evident in his games and playthings. The next plaything shows this.

Globe and cube are pure contrasts. They are related as unity and plurality, and yet more as movement and rest, as round and straight. The law of mediation demands a link between these opposed similars. This is found in the cylinder, which unites in itself the completed unity of its round surface and the plurality of its two flat surfaces. The former expresses movement, and the latter rest: round and straight are united in it. It follows that the cylinder is the next plaything, and observation of the lives of children, especially in the country, shows that this is right. Note how they love to play with cylindrical or rounded pieces of wood, especially when these are sawn off short and are disc-shaped, and so reproduce the essential properties of the cylinder.

We rejoice to see, then, that in choosing these three early, and almost first, playthings, we reach the same result by following strictly, on the one hand the re-

quirements of thought and the development of the idea by thinking, and on the other the requirements of the free life of the child. Since an experience of more than ten years in using these playthings and games with children has proved their worth in the free development of life through play, we may rest assured that we have found the right means of cultivation for that first stage of childhood which we have here in mind.

About the special use of the cylinder nothing need be added. It follows easily from its shape and from the modes of using both the previous play companions of the child. One further essential point, however, must be noted. Globe, cylinder, and cube form a connected whole consisting of two opposites and their mean, just as in an earlier stage did the two sets of three coloured balls. United in a kind of family relation they form the second play-gift.

One small reference from these first playthings to the phenomena of social and artistic life may be permitted. As a united trinity they point to a trinity in architecture—the column with its cubical pedestal, its cylindrical shaft, and its globular capital.

What is the essence of the materials for play described so far? It is that the plaything is always an individual, connected, and inseparable, whole. Only at the end did we see that the three objects, each itself an individual, can unite to form a harmonious whole, as did the balls in the earlier stage. Opposed to this group-whole is the individual whole which consists of parts related to each other and to that whole, just as are these individual wholes to the harmonious group-whole. But though in the previous consideration we treated these as wholes, yet each appeared as a whole made up of parts.

This quality of being at once a whole and a part of a

wider whole is fundamental. Therefore it is most important that both things and men, even in the stage of earliest childhood, should be thus conceived and treated. So the child cannot too early be led to observe, know, and recognize these relations, and to act accordingly. Our consideration of globe, cylinder, and cube, as a united whole for play, shows clearly that this second gift fulfils these conditions.

The mother's human instinct also leads to this. In attempting to satisfy a child who is difficult to soothe she brings him a number of objects. And the child, also instinctively, tries, by taking to pieces things which he can dissect, and by regarding the parts of such objects as being distinct, and so, as it were, movable, to get a number of objects which he can put together again.

CHAPTER III

THE THIRD PLAY

THAT instinctive seeking of the child for a divided whole which we saw at the end of the second gift is satisfied by the law of the progression of the playthings, which leads next to the cube bisected in each direction, and so gives another example of the union of one and all. By this division the cube which has hitherto appeared as a single cube now appears as eight equal constituent cubes, saying, as it were: "Look! it is of the utmost importance to observe the cubical form in life, so here are eight constituent cubes, all of equal size." And it is true that the apprehension of the cubical form is of the first importance for every aspect and relation of life; for the inner life of the soul as well as for the external physical life; for the artistic as well as for the scientific and practical life. It follows that knowledge of the form of the cube and of how it may be used cannot be given too early.

Of the innumerable proofs of this importance of the cube which are offered by human life only a few need be noted. The Graces were first worshipped in Greece in a temple built in the form of three perfect cubes. This shows the importance of the cube for such representative arts as sculpture and the higher forms of public architecture. In science the cubical plays the same part in the attainment of knowledge of solid bodies as the straight line does in the examination of surfaces. Even for the

moral life it is most significant. Symbolic as it is of stability, it is most instructive for societies which are not so deeply rooted in the past as widely extended in the present ; and instructive in relation not only to the true aspirations of humanity but also to the conditions necessary for their attainment.

So in this first and simplest division of the cube attempted by the child the cube re-appears, though now in multiplied form, or, as we say on a higher level of expression, in eight-fold form. It is really almost magical how strongly these eight simple cubes, each exactly like the others, attract children even as early as the beginning of the second year. The little ones, who always long for novelty and change, love this simple plaything in its unvarying form and in its constant number, even as they love their fairy tales with the ever-recurring dwarfs ; for like brownies the little cubes lend themselves to every device. Proof of this attachment of the most tender, thoughtful, angelic, children for these eight rigid unvarying cubes can be found in many families and institutions in which children are truly cared for and trained. Many pages of anecdotes of children could be written to show that opposition to these cubes as playthings is founded in error. Even if this be not convincing to all opponents yet what has been said should be enough to lead thoughtful and earnest lovers of children to realize the true spiritual relation of the playthings to the needs of the children, and to test the matter for themselves. Then our children may once again have a real childhood ; that is, a life in which all the spiritual energies are strengthened as a united whole, before they are compelled to the separate manifestations which external life necessitates in the higher stages of consciousness. Such separation is indispensable both for the observing,

comparing, and thinking, mind, and for the outward expression of the mental life. But it must by no means appear in the primary consciousness, the function of which is to comprehend and gather into its own unity what thought and understanding set apart, and what the appearances of life separate.

This greatest art of true living cannot be directly taught, because it depends upon the continued retention of this original unity. It can only be fostered, and should be looked for in the very earliest days. Now, the play-things most vigorously attacked—globe, cylinder, cube, and divided cube—perform this task admirably. They lead directly to the practice of this greatest art; for in their sharp separation in appearance and use they tend and cherish this unity in the warmest, purest, and most tender and thoughtful, way. That hundreds of children who play with them exemplify this is the most cogent proof of the deep truth of the mode of education here advocated. This is its highest glory.

Not more valid is the objection that children playing with these gifts are too earnest; that they are not noisy, merry, and full of laughter. But in these days life cannot too soon be taken in deep earnestness. Our most famous educator, Jean Paul Richter, says: "Play is a very serious matter to the child. To him it is a business which absorbs his whole feeling, thought, and action." So here again the missile misses its mark and falls harmless to the ground.

The first thing the child feels, then, must be that the purpose of everything done for him by his parents and other adults is to mould his inner life, both as itself a whole and as a part of a greater whole. This feeling will be the seed from which will grow love and gratitude to his parents, respect and honour for age. The ennobling

sense of the unity of all life, which is revealed in love, will bear imperishable fruit in his soul and show itself in his actions. Something abnormal in the child would be indicated were it otherwise.

The real and innermost purpose of the playthings and games is to help the child to gain these noblest treasures of life. If we consider society as it is to-day we see that the mental lives of adults are more remote than ever from those of children. This is mainly because the life of the family, and especially the treatment of the children and youths, are no longer in accord with the requirements of their developing humanity in its successive stages of insight into nature and into life. If harmony between the lives of adults and children be again found, it will be because the union of life and feeling again grows out of the innermost germ of life. This we hope to attain through the care of childhood here outlined ; for the spirit in which the games have originated, and in which they have been worked out, is that of the unity of all life.

The next plaything, then, after the ball, complete in itself ; after the hard globe, like itself in all its parts ; after the solid undivided cube ; is a solid which the child has strength to divide, but which he can also put together again and group. It must, then, be at once simple and complex. What can be more suitable than the cube divided into eight equal parts ? Without any explanation the child here recognizes as a fact the distinction of part and whole ; for each little cube is a part of the whole.

Everything which he sees once in the large cube he sees repeated in the little cubes as many times as they are found in the whole. He also distinguishes size from shape, for each small cube has the same shape, but not the same size, as the great cube. But one and the same

size is seen in the small cube as many times as the number of those cubes. Hence, in this simple play, the fundamental ideas of whole and part, form and size, are made clear by comparison and contrast, and established by repetition.

Further, the child has an immediate apprehension, as facts, of position, and—what is even more important—arrangement. For in the cubes before him he sees an *above* and a *below*, an *over* and an *under*, a *before* and a *behind*, etc. ; and this is arrangement, for it is *one above the other*, *one before another*, and so on.

The child sees the fact before him and can repeat the observation as often as he will. So the idea grows as part of his mental life, and as often as his senses again perceive the same relation that idea is recognized as presented by the external world of things.

These indications, few as they are, show that the simplest plaything which embodies a truth includes in itself for the child a steadily enlarging series of perceptions suited to his progressive development. The more deeply we meditate on the application to the needs of his life of this first of the divided playthings, the more we see in it an all-sided evolution of powers quite commensurate with the developing process by which the world of things is increasingly laid open to him. So to him it is at once a key to the outer world and an awakener of his inner world. Let us dwell on this for a moment, for it is important both for understanding the course of human development and for gaining knowledge and comprehension of the external world.

How does this last take place ? It is through the constant recognition that the general is represented in the particular—*e.g.* the centre of any square in the centre of each particular surface of a cube ; that the most general

is represented in the most particular—*e.g.* the general abstract point in each particular point or corner of the cube; that unified general qualities are represented in the most particular examples—*e.g.* the nature and general qualities of filled space in each particular cube; that unity is represented in variety and plurality—*e.g.* the common nature of lines, their direction and terminal points, in the various edges of the cube.

And how does the awakening and development of the inner world of thought come about? It is through the perception that the general and abstract can be visibly expressed in a particular form—*e.g.* the general idea of straight line in a particular edge of the cube; that common nature can be expressed in individual cases—*e.g.* the abstract point in a specific corner; that inner nature may be expressed in outward form—*e.g.* the main inner axes of a cube in its outer edges; that what is imaged and thought can be made visible in outward shape—as shown by the cube as a whole; that a simple and single quality can appear in many and varied forms—*e.g.* each of the three inner axes appears as four parallel edges, so that the invisible is, as it were, made visible and observed.

It is plain, then, that the first divided plaything, insignificant as at first sight it appears, responds to the high requirements of the development both of man and of knowledge of nature, and hence, by cultivating both harmoniously, leads to the true knowledge of God. ✓ ✓

But the cube, as not merely having square sides but as being itself a solid square, symbolizes the unity of all that in the child's surroundings is at rest, stationary, or fixed, especially in so far as such stability is due to the work of man. So the play becomes to the child the key to the world of things. But it is equally an excellent

means for stimulating the inner world of thoughts and feelings, for the ease with which the parts can be put together and accommodated to any purpose makes it possible for the child to see each of his thoughts take shape in a variety of visible forms.

This leads us to point out that it is a common error to give the child playthings which positively hinder both the development of his mental capacity and the growth of his knowledge of things, because they are too complete and perfect in their likeness to the things they represent. This is the adder hidden under the roses. The child can do nothing with such toys, for he cannot get enough variety out of them. They nearly kill in him that power of creative imagination by which he gives material and visible form to the ideas he conceives in his mind. Moreover, by their too great perfection of representative form they make no demand on the child to seek and find the particular in the general—e.g. to see some household object or some familiar animal in a cube or a combination of cubes.

Through this early representation of his active spiritual life by the arrangement of the parts of the great cube in accordance with observed facts, the child attains clear knowledge of nature and of himself, though he cannot yet express it in words. Already the first plaything of this series has been seen to lead to clear and definite apprehension of the simplest and most general ideas. But it leads also to a clear ordering of feelings, to distinction between the senses and appropriate use of each, to a desirable and effective putting forth of energy. And all this, while the child's life is still in the undisturbed unity of the primary consciousness. It is in accordance with this conception that this gift should be used. Through this play, as through the similar ones which follow, the

child should be given the task of developing all his powers and capacities by free exercise in ways fitted to his stage of advancement in life and culture.

That the child may begin in the right way with a clear idea of the whole, the little box containing the divided cube should, before it is given into his hands, be shown him with the cover about a quarter withdrawn. It should then be turned upside down on the table, and the cover completely and gently withdrawn so that the arrangement of the cubes is not disturbed. The box is then carefully lifted off, and the cube appears before the expectant child as at once compact and easy to divide and put together again. This first careful presentation of the plaything is in union with its purpose, for it immediately gives the clear impression of a complete whole, which is soon seen to consist of separable parts. Since the novelty of the game will make the child intent upon it, his first impression will be vivid and permanent. And nothing is more important than that the first impression of every object should be that it is stable and unified.

It must be pointed out that the child's life is affected more by what to adults seem insignificant impressions and unimportant occurrences, or by what is actually overlooked by them, than by what they esteem great and important. For the sakes of our children let us bear in mind that in the life of man great and far-reaching consequences result from beginnings often very small and insignificant in themselves. Hence, quite contrary to the prevalent opinion, it is seen that careful watching of the small and insignificant is nowhere more important than in the nursery and in the bosom of the family.

CHAPTER IV

THE FOURTH PLAY

BEFORE giving the child another new plaything we will try to describe exactly the stage of development to which the means already provided for tending his impulsive activities have raised him, and ask what are his further requirements, so that we may consciously and adequately satisfy them.

Just as his first consciousness was of his body as both contrasted and connected with his surroundings, so the gift of the ball separated out for him, from amid this general vague mass of surroundings, one definite solid body. Just as through his own living he perceived his body as an object occupying space, so, especially through the contrasts of rest and motion, of appearing and vanishing, the ball came to him, as it were, out of indefinite space, as another object which also occupies space. He thus acquired two important means of comparison—body and body; object and object. That is why it is not a matter of indifference what are given the child as playthings and means of comparison. He perceives himself as a life, and he regards the ball as another life, separate from his own. At the same time, as he feels in himself the budding of many different tendencies, so he should find the same capacity for variety in the object he first perceives as a separate thing. This requirement also the ball fulfils.

In the next plaything—the globe and cube—the child

encounters differences of form in the simplest and most contrasted concrete examples. In the globe he finds unity of form with the systematic three-fold arrangement of parts implicit in it which is made explicit in the cube. For in the cube the arrangement appears visibly in outer shape, and does not merely lie hid in internal and unseen relations as in the globe. The child also enlarges the ideas of movement which he retains from the ball; especially through the cube whose very form emphasizes rest and repose.

The cube divided into eight parts shows each of the qualities of the cube eight times repeated, and thus, as it were, insists that they should be carefully observed. For example, the differences between surfaces, edges, and corners, are very marked, and yet more noticeable are the three directions perpendicular to each other presented by the sides. These are all equal and are not distinguished in any way from each other, except that in building with the small cubes the main directions became length, breadth, and height, and even this differentiation is only temporary.

Thus, the next plaything should make apparent by obvious differences of magnitude the distinction between length, breadth, and thickness or height, so that the variety of forms presented by things may be more clearly apprehended. This is secured in the cube divided into eight equal oblong bricks, which is, therefore, the fourth plaything or means of occupation. Through it the child gains an idea of a fixed measure which may be applied to temporary as well as to permanent forms. Thus both the inner world of thought and idea and the outer world of perception receive the enrichment demanded by the stage of development reached, and each both needs and helps the other.

Observe the simplicity and certainty with which the way of education we have accepted as true is followed, and how adequately it meets the requirements of human development. One of its first principles is that each gift should implicitly contain the next, so that this has only to make explicit what has already been perceived and to draw attention to it. No new means of education must require from the child anything that is not founded upon, or indicated by, that which precedes it. Up to the present this principle has been absolutely fulfilled.

A further requirement is that each object should appear to the child as a self-contained whole, and yet, through its many relations with other things, as part of a greater whole. This is also quite apparent in the playthings hitherto considered. Each in itself is a complete whole, but each is in essential relation both to that which precedes and to that which follows it, so that each can be deduced from it.

Further, they present as a fact the fundamental principle that all understanding of life consists in so harmonizing outer experience and inner thought, that the latter comprehends the former, and the former expresses the latter. For as globe and cube make manifest in outer shape their inner geometrical relations, such as centre and direction, so through them the child gets a more intimate grasp of the nature of external things, and so attains a truer and more real knowledge both of life and of his own nature.

As has been already indicated, the new significance of the plaything and play now to be considered is that the distinctions of the three dimensions, already presented in the cube, are shown as visible and permanent by differences in the size of the little blocks which together form the cube. So, while the previous plays dealt

essentially with formations of mass and representations of solid objects, these new plays will be concerned mainly with representations in two dimensions on a horizontal plane. As the former filled space, so these limit and enclose it, and represent various hollow forms.

Here again the forms produced may be distinguished as representative of things, expressive of beauty, or productive of knowledge. The latter, in comparison with the previous play, make more evident extension of surface and length. But the forms are all square and rectangular, so that the geometrical relations involved in those figures are here made especially manifest.

Two other new phenomena which appear in this play are equilibrium and the passing on of movement.

Here, again, the play should be free, with the mixture of the accidental and the necessary which marks freedom, provided that everything that is formed be named in reminiscence of some familiar thing. The first construction may be a little house, a room, a table, a chair, or some such thing. But what gives most pleasure is the building up of tall objects—such as a high tower or a flight of steps—so that they retain their equilibrium. Nor is the ease with which these structures can be overthrown less a source of joy. One must not measure the permanence of the benefit to the child by that of the building. The more varied and numerous are his observations, the more fully does he comprehend the use and form of the part. But, that his thought may be aroused, one must never omit to talk with him, describing what is done in language clear to his understanding, so that when he plays by himself he will play with his mind, representing with the bricks ideas he has conceived, and not merely thoughtlessly pushing them about.

This, and all other representation, must be conditioned

by the requirement that whatever construction is made—be it simple or complex, a compact whole like a monument, or a scattered one like a garden or a village—all the blocks must be used for it, or, at least, connected with it. The purpose is again manifold. First, that the child should not occupy himself thoughtlessly, but should be forced to form a definite plan and to bear it in mind. Next, that he should regard the object to be represented in many relations and associations, as, for example, he must of necessity do when he has to bring into some natural connexion with the object already constructed one little block that he has not used. Lastly, that he should use all that is given him to use, and leave nothing unheeded. In this way is developed the power of clear comprehension of external means as well as inner observation and planning—at once the power of conceiving ideas and the skill to execute them.

We have said above that the necessary and the accidental are involved in free play. We wish to illustrate this. Let the mother take the little box, put it upside down on the table, withdraw the cover, and lift the box. Then the cube lies before the child. This presentation is best made when the surface on which the cube is deposited is a square of wood or of paper ruled with a network of squares whose sides correspond in length with the breadth of the building bricks. The mother then by so naming it turns the cube for the child into the stove in the middle of the room, on which its own soup is warmed and father's dinner is cooked ready for his return from work. The fire burns on a fire-grate in the centre of the hearth, round which we can walk to tend the fire more readily. The soup is ready, the food is cooked. So the hearth built of the bricks is no longer needed, and by a thrust of mother or child it is resolved into simple stones.

Now the father comes home and wants his dinner. So the building material changes its nature and becomes table, bench and chair, so that all can sit down to the meal. At another time it is summer, the child plays out of doors and the material becomes table and bench of stone. Here it may be shown that the wooden chairs and benches have backs, while those of stone have none. Again, from each half of the big table two chairs are formed; so are got four chairs with which the children play at visiting. At another time a garden-house is built and visits are received there. The mother tells how the carpenter has built this house of boards, so that people can sit in it and baby rest in mother's arms, and so she sings him to sleep with a lullaby. Or again she tells how, when they are walking in the garden, the wind rises and the rain begins to fall. They seek shelter in the garden-house, where walls and roof protect them.

It is both valuable and attractive for the child to see one object thus spring out of another or be changed into another, as a large table into a table and two benches. It is this change which makes these occupations so full of life and charm. For it is this manifestation of a necessary internal connexion in the object, due either to purpose or to form, and so showing, as it were, its inner life, which awakens, fosters, and guides, the spiritual life of the child, and destroys all tendency to disruption. For it is union which creates life.

The real every-day life can also be seen in the bricks. Six bricks can be an avenue of trees in which father and mother, brother or sister, walk. Or they are a cow and its calf, a horse and its foal, and so on.

It has already been said that the aspects and relations of life should be made prominent in the stories and tales which accompany the building. This story-telling should

be carried out on the same lines as in the third gift. Especially should the element of life be emphasized when the results of any kind of force are made manifest in the constructions, and when degrees of force may be compared or changed.

Let us now look at those constructive forms which promote knowledge.

The eight bricks are, when taken together, of the same size as the main cube in the third gift. So the first glance shows that they are equal proportionate parts of the whole, and the play makes this even more evident. For example, one bench can be divided into two equal benches, a table into two halves, of which one remains a table and the other becomes two equal-sized chairs or benches. So in this fourth gift almost the same relations of magnitude are found as in the third. But, taken apart from the symbolic reference to life and regarded simply as relations of magnitude, they appear here primarily as relations of surface, while in the third gift they were seen mainly as relations of mass. The easiest transition to these instructive forms is through the wall built of bricks which can be laid down flat as a floor. The representation and observation of surfaces makes clearer the apprehension of relations of magnitude, since it can easily be changed into representation and observation of solids; *e.g.* the whole unit can be viewed now as cube, now as slab, now as simply surface. This change of the representative idea between solid and surface has a peculiar fascination for the child. As the mother divides the whole cube in various ways, sometimes horizontally and sometimes vertically, and groups the parts in many different combinations, she accompanies each with a descriptive or representative and symbolic verse.

The transition to the forms representative of beauty—

or forms of symmetry, as they might be called—is made from the instructive forms. The geometrical form which appears as a regular whole is divided regularly by the separation of similar parts so as to give a symmetrical arrangement; as, for instance, if a rectangular surface consisting of sixteen blocks be divided down the middle both horizontally and vertically, and the corners thus made be drawn equally apart so as to leave a blank cross-shaped space. In this way the geometrical form of knowledge has passed over into an artistic form, as the parts now appear more definitely as related parts of a whole, grouped round a common centre. The artistic forms are evolved first in a circular arrangement, then in one radiating like a star. All this is also contained in the third gift.

The basis of the whole is found in the three main directions, involved in the cube, and in this gift made clear by differences of magnitude. Each construction is again accompanied by song or story.

CHAPTER V

THE FIFTH PLAY

IF we now review our progress so far, we see that all the general properties of solid things are indicated by the ball, so from play with the ball the child learns to recognize all the general qualities of the world about him—matter, weight, force, cohesion, elasticity ; and also shape, size, and number, as three qualities united in one. Thus the ball introduces him to nature and opens to him the world of things, both as an external world to be perceived and as one conditioned by law and related to life. In its unity it leads to a true idea and a correct use of the objects about him, especially through the contrasts it reveals to him. The nature and relation of these contrasts are made prominent, for it is from them that the globe and the cube develop.

To help him to an understanding of all things, the globe and the cube might be given to the child either together or separately. They are given together so as to induce a clear comprehension of all the contrasts which meet him in the surrounding world and in life, and to facilitate the resolution of them into unity. For the globe is, before all else, the symbol of all outward expression which, though apparently clear and obvious, yet hides the true inner nature ; while the cube, on the other hand, is essentially symbolic of an explicit and direct, though imperfect, representation of inner nature. Thus, each explains and

supplements the other. Play with the ball, under the guidance of a sympathetic and experienced teacher, imperceptibly leads the child through the qualities of the ball into a general knowledge of things, of nature, and of life; play with the globe and the cube, especially when it involves comparison, leads him, on the other hand, more particularly into specific knowledge of them.

If we look at the series of the means of play, a law of development is clearly visible which may be thus indicated.

Ball : a solid roundness, but easily movable.

Globe : a firm and rigid roundness, and much less mobile, in which, therefore, definite straight lines or axes can be distinguished, though they are invisible and their direction is easily and frequently changed.

Cube : the invisible and changing straight lines of the globe become visible and permanent, and always of equal length.

Cube divided once : the straight lines and rectangular surfaces, which in the undivided cube are visible only externally, can be shown in the divided cube to exist internally. What the undivided cube shows once the divided cube shows many times. The straight lines and edges which in the cube are always equal in length can here by composition be made to give unequal lengths, though these are only in temporary form.

Building Blocks : the unequal lines obtained from the divided cube in temporary and changeable forms appear here as permanently unequal and different.

Each development of a means of play is, therefore, not only given in the preceding means but demanded by it, so that the next means only sets it in relief. Hence, the next plaything—the fifth gift—must have already been, not only given and indicated in the previous ones, but

demanding by them, so that we only need to follow the same law of development to discover it. Now the last of the series of cubical playthings was the cube divided equally once in each dimension. The natural sequence is from one to two; so that the next plaything must be a cube divided equally twice in each dimension, so that every side is divided into three equal parts and the whole cube into twenty-seven equal little cubes. But this would give merely an increase of the means of play; not a developing extension of them. So a new development must be added which has only been incidentally indicated in the preceding gifts, and that is division diagonally. The diagonal is demanded, according to the general law, as the mediating link between the two opposites—vertical and horizontal. The diagonal, then, is already given and indicated in the previous gifts and grows out from them, if only incidentally, especially in the forms representative of objects and expressive of beauty, in which surfaces and edges are so related that an oblique—or diagonal—direction appears next to a vertical or a horizontal one. So the demand to be made of the next plaything is that this incidental diagonal direction should be made permanent. This is secured by dividing a cube into two parts along the diagonals of two parallel faces; that is, from one edge diagonally to the opposite edge. Each of these halves of the cube is a rectilinear column the base of which is an isosceles triangle.

This diagonal division is demanded by the nature of the cube as well as by its external relations. But how many such divisions should there be? There must be two, for they must give not only halves, in which one such plane of division appears as a side of the column, but quarters, in which two such planes of division so appear.

A further question is how many of the small constituent cubes shall be thus divided in each of these two ways? Since the key-number is three, the answer is found in the matter itself. Three cubes are divided in each manner; so that in a third part of the cube three of the constituent cubes remain undivided, three are divided in halves by one diagonal, and three in quarters by two diagonals. Hence the fifth gift consists of twenty-one whole or undivided constituent cubes, of three divided into halves, and three others divided into quarters by the diagonals, and these together constitute one main cube, consisting of twenty-seven small cubes.

The use of this fifth plaything, as of the earlier ones, always begins with a clear apprehension of the whole as a unity; therefore it should, like them, be first shown with its parts closely packed together in their proper arrangement. It is first employed to construct forms productive of knowledge. The knowledge and insight which it is difficult to get through speech alone is easily obtained when the object is perceived and manipulated. For the object is seen at once and immediately as a whole, while verbal description only builds it up gradually. Yet words, especially when rhymed, can make the apprehension even more clear, for observation is always more conscious when it is expressed in language. So all division and reunion in this gift, too, must be accompanied by descriptive verse or story.

The various arrangements and combinations of the constituent parts illustrate the change of one form into another, the evolution of many out of one and the return again of the many into one; or, in other words, diversity, multiplicity, and unity. Thus, there should be exercises to enlarge the child's knowledge of numerical relations; and others to show such properties of surfaces and solids

as shape of surfaces, direction of edges, kinds of angles, and so on, as in the third gift.

When the constructions are representative of objects or of events in life the rule given for the fourth gift, that all the material must be used and each part be brought into vital connexion with the whole, is still peremptory. The cubes again represent table or stove, which is changed into an easy chair, a sofa, a bedstead, and so on ; then the construction advances in complexity and erects buildings of various kinds—steps, a well, a church, a town-hall, a village, a bridge, a monument, a lighthouse.

These representative forms give rise directly to artistic forms. The latter should not destroy the former, but either develop a greater variety in them or lead them back to a more perfect simplicity and compactness. They differ from the artistic forms of the fourth gift in that they include triangular as well as quadrilateral forms. Consequently they give two sets—one of quadrilateral and the other of triangular forms. Each series starts from the centre and develops outwards by moving the parts till they are in fixed positions determined by the plan conceived in the child's imagination.

CHAPTER VI

OCCUPATIONS

THE gifts we have considered are founded equally upon the nature of the child and the essential qualities of the playthings. They have their root in the fact that through his body, which is material and corporeal, the child as a spiritual being is related to the world of things. But the simplest types of solid material bodies are the ball, the globe, and the cylinder. The child observes and uses these, so as to make explicit the qualities in which they differ as well as those in which they agree, and the relations both of rest and of motion. The exercise of the senses and the limbs is here the connecting link between development and occupation, between unity and mere undifferentiated continuity, between the spiritual and the physical.

In agreement with the general law of the opposite we advance from the undivided to the divided; from that which is divided once to that which is divided many times and in different ways—from the formation of cubes to that of bricks; from straight to oblique division. These are the well-known gifts for play, from the third to the sixth inclusive. For the sixth consists of a cube divided into twenty-seven building bricks, some of which are divided obliquely.

By a first step in abstraction there may be derived from the solid blocks of these playthings another means

of play—the tablets, and these also are first rectangular and then triangular. Their use and their service to the child are decided by their shapes and the different positions they can take relatively to each other. They are the material for the closely connected series of laying-games, which are capable of a large and varied extension, and are, therefore, of great educative value as well as at once attractive and instructive.

By another step of abstraction blocks and tablets give rise to sticks. These are used in two chief ways—first, they are laid next each other so as to outline forms of things, artistic forms, and forms promoting knowledge of number and counting and of the shapes of the letters; secondly, they are fastened together into a closed figure by means of soft connecting joints, such as peas or pieces of cork. To obtain a temporary connexion flat and flexible slats are substituted for sticks. The arrangement of these is called ‘interlacing,’ while the former mode of connexion is known as ‘pea-work.’

The interlacing of slats so as to present an appearance of an undivided whole, which yet can be easily moved and changed, leads to occupations with jointed sticks, in which one form can be developed from another, and a complex form reduced to one of greater simplicity.

The interlacing and other uses of the jointed stick leads on to occupations with strips of paper. These may be folded along their length, and knotted and entwined in many ways beginning with the simplest. Or strips of variously coloured paper may be woven together so as to lead to plaiting.

In all these occupations the division and methodical use of the whole leads to the observation of shapes of bodies and surfaces in transparently representative symbols. By dividing and re-uniting the material used

they transform it into new forms, but always without changing the amount, so that the material reality remains always the same.

If the whole which is to be changed in this way be more solid and massive, it must be of a soft and impressionable material, so that the alteration of form is readily made. This gives us the earliest and simplest form of embossing and modelling, beginning with the globe or the cube. If we start from a surface which cannot itself be changed we get folding. If we set out from a thread we get the children's game known as 'cat's cradle,' in which various forms are produced by stretching a thread of fixed length and fastened at both ends over the spread-out hands of some other person who is joining in the game.

The next occupation in the regular order of development is cutting shapes out of paper. This connects the two preceding modes of play, as it unites the separable form with the fixed material, so that the material remains but is so divided that it is given some definite shape. On the other hand new separated parts are produced, and these can be again united in accordance with general laws of combination.

From the practice of this most important occupation ensue two chief results. First, if the forms cut out are examined it is seen that they can be classed into those which are artistic in that they express an idea or thought, and those which represent some surrounding natural object or something connected with human life, as, for example, some domestic utensil, a tool, or a doll. Secondly, the part from which the figure has been cut away remains as a whole, or can be united into a whole, and appears as enclosing space. This gives the hollow representation of the object, and so can be applied to human life, as to the hollow house, or, in more immediate connexion with

the child's every-day life, to the sitting-room, from which his understanding of the whole world starts, as from a living picture.

So a review of the whole series of the occupations shows that it should be to the child a picture unfolding the whole life of nature and of man, so that it may induce in him such an understanding of that life and of its meaning as he is capable of attaining. Of all these constantly connected occupations and activities of childhood and youth we will develop only two—the folding of paper and the laying of sticks.

FOLDING OF PAPER

Paper-folding starts from a surface which has a given definite form. The simplest form is the square, for in that is found both the fundamental basis and the law of development—the form determined by four equal sides and four right angles and four equal corners. Although the triangle with three equal sides, three equal angles, and three equal corners, appears to be numerically simpler, and therefore, to come first, yet its nature shows that it is really a derived figure.

The square can be formed from any stiff paper surface, no matter what its outline. The given piece of paper should be folded, in any direction one likes, into two parts as nearly equal as possible. Then the paper still folded is to be again doubled at the point which bisects the line of the first fold. Thus is formed a right angle, on one side of which the paper is folded but undivided, and on the other are two separate but coincident edges. Another fold is now made starting from the right angle, so that the side with the separate edges coincides with that with the folded edge, and makes half a right angle

with the new fold thus obtained. A notch is then made at any point in this first-named side—*i.e.* that in which the folded edge coincides with the separated edges. Then we open the last fold, lay the figure flat, and cut off the superfluous paper along the straight line joining the two notches. If the triangle which is produced by this cut be unfolded, we find the desired square. The remarkable thing here is that from the paper which if left to itself would keep its indefinite form, we have, by three folds and three cuts, obtained the simplest regular figure—the square.

We have described this particular process only to illustrate how, by regular division, definite form issues from that which is indefinite in form. It would, however, be absurd always to set about making a square in this way. A truly formative education always takes account of what is at hand, and there are many rectangular figures, if not squares, in the things around us. The machine-cut paper which is now so common often gives us these with great accuracy. We should take full advantage of this gratifying adaptation to our needs. So it is best to employ this machine-cut paper in paper-folding. In ordinary life, and especially in elementary schools, filled copy-books or drawing-books may be used.

By folding, many squares can be obtained from one sheet, and the results show in various concrete ways many relations and truths of form and magnitude. For example, the diagonal divides the square into two equal adjacent triangles, therefore, a triangle is half a square if it has the same base and height ; or again, a square is divided into two equal adjacent rectangles by a line passing through the centre of the square parallel to two of its sides ; or again, the sum of the angles within a right-angled triangle is equal to two right angles, and many others.

LAYING OF STICKS

Like all the other playthings and plays that enter into these occupations, sticks and games with them are not introduced arbitrarily. This play grows necessarily out of its predecessors just at the right time, when the child has reached the age at which he has developed strength and skill not only to amuse himself with it but really to occupy himself with it intelligently and, therefore, educatively. It is introduced at the beginning of the fifth year, and during that year increases in perfection. It follows that we cannot have a healthy and vigorous result from this activity until the child has been suitably trained through the earlier games. Unless the powers of perception, memory, abstraction, and creative representation, have already reached a certain strength and competence, the products of these games are but half-ripe and insignificant. So to occupy a child with the sticks at too early an age has more disadvantage than profit. For he comes to believe that as he, with his immature powers, can do nothing with this plaything, so, in general, nothing can be done with it, and he consequently regards it with indifference. On the other hand, it must be noted that it is a plaything which can be easily mastered by a comparatively small amount of strength and skill.

The sticks grow directly out of the tablets, which being made of pine or fir are easily split along their length, and so, as it were, unfold themselves into sticks. If the children are strong and apt with their hands they may be given the additional pleasure of splitting the tablets for themselves. Then for the first time we have children led by these occupations to make their own playthings, and so to find in their own experience how one arises from

another. Thus their own activity gives them an insight into the connexion of objects in a progressive series. This is the most educative property of these playthings.

As the sticks originate in the tablets, so these latter are evolved from the building-bricks of the fourth plaything, with their three different dimensions; the length being equal to that of two small cubes, the breadth to that of one, and the thickness to that of half a small cube. But these bricks, according to the same law of progression, arise from the four rectangular and equilateral columns which may be formed with the cubes of the third gift taken two together. Further, the cube is a necessary outcome from the globe, which is itself the original soft ball in a more perfect form, suited by its greater firmness and mobility to the more fully developed child. In the ball, and yet more evidently in the hard globe, the lines of the three great directions—or dimensions of space—are present and, though invisible, may be apprehended as cutting each other at right angles. In the cube these appear as three times four straight edges, and in the rectangular equilateral columns as four times four times three, and in the eight rectangular building-bricks as eight times four times three edges. Finally, from the more divisible and separable tablets they issue as sticks in which they are, so to say, given an independent existence.

We have now traced the development of the sticks as a means of observant and intelligent education, backwards to their root in the globe, and forwards from that origin. It is important thus to show that their first appearance in the world of things is as straight lines gathered together in the globe, so that they have their root in this fundamental unity.

Since, then, all the games and occupations are actually

evolved in a necessary sequence from the globe and the ball, they may be symbolically represented as branches of a tree whose seed is the ball. Or we may liken the ball or globe to a bud which at the right time develops by its own vital energy and from itself the stamens and pistils of a flower. Such analogies with plant life are intended only to emphasize the continuous living evolution which lies in the very nature of the whole series of playthings, and of the occupations connected with them. This must be made clear; for it is important, for the individual child as for the general progress of humanity, that he should, in ways adapted to his mental and bodily powers, be early led by his play into this inner connectedness of that general life of things which he himself shares. This is the main purpose of this organically connected and systematically arranged whole of games and occupations as means of education.

The use of sticks presupposes a moderately advanced stage of culture. In the first place, it assumes thorough control over the use of limbs and senses, especially sight, hand, and particularly, fingers. In the next place, it assumes a clear comprehension of the round and the straight. And under "the straight" is included the perpendicular with the distinction between vertical, horizontal, and oblique, and the latter recognized as slanting either to right or to left. The games with the ball and the globe have already many times given the child all these distinctions. Further, ideas of relative position—such as parallel lines and lines not parallel, equal and unequal angles—have been given as immediate perceptions, and named without verbal explanation during games of movement with ball and globe. In games with the cube these are made more explicit, and the child gains a clear apprehension of angles and corners, edges and sur-

faces, sides or planes, as connected or unconnected lines. But these conceptions the third plaything—the cube once divided—shows repeatedly with special clearness, and in admirable connexion and arrangement. It is, then, a clear knowledge and skilful use of this plaything which the laying of sticks chiefly presupposes. For it is from masses that the child gets his first ideas of outlines, which by a gradual process of abstraction he comes to conceive independently.

One further conception is needed to give the laying of sticks its full educative value. It is that which goes beyond mere differences of length to relative differences. Doubtless, occupations with the third gift presented this many times, but the differences were always intermittent and temporary. It is given permanently in the fourth gift—the eight little building-bricks. If we add to this the laying of tablets, and if we let these develop or, as it were, collapse into sticks in the way indicated above, we have then reached the stage at which the child we are educating can profitably begin laying sticks, and find in that occupation a means, more adequate than any he has yet known, of expressing and representing the ideas which he forms in imagination.

What is gained by thus viewing the occupation of laying sticks in its interconnexions with the whole series of playthings and with each member of that series? We have made clear the following points:

(1) That in reference to any individual game, the whole series is an organic whole arranged systematically, and not an arbitrarily formed composite totality.

(2) That the use of each succeeding gift presupposes that of the gift which precedes it, and that both must then be practised at once.

(3) That the laying of sticks introduces the child by

analogy to all the directions and relations of the living world, and so is a true means of education.

(4) That knowledge of the manifold implies knowledge of the individual, and that in its turn involves knowledge of unity, without which diversity is impossible. Hence, that knowledge is at once one in nature and three-fold in aspect.

(5) That the sticks, regarded as the last link of the whole chain of games and occupations, include all the essential qualities which were contained in the ball: the filling of space, limitation, material content, cohesion, weight, extension—especially in length as seen also in ball, sphere, cylinder, etc.—form, magnitude, number, colour, and even tone and elasticity.

(6) That through visible embodiment, laying of sticks gives invisible directions and positions, especially the invisible centre. So, like cube, globe, and ball, the sticks unite the highest and most general laws of earth, of nature, of the universe—unity and individuality, opposites and connecting mean.

Having considered the nature of the stick we may now examine its relations to surrounding objects, and particularly to planes and surfaces, including the surface of the earth itself. It can either stand vertically, that is, perpendicular to that surface; lie horizontally, or parallel to it; or hold an intermediate position. All these and other properties which, as it were, lie hidden in the sticks, are gradually made known to the child through his games with them, and give him a delighted appreciation of them as playthings with which he can really do something.

Let us now pass to the laying of the sticks. The stick is to the child the diameter of the globe become visible, or an abstracted edge of the cube, or, as a plurality, the product of a divided tablet, or a straight line become

rigid. But in play it stands for him as the representative of everything that is straight, and with this conception all the games are connected.

The stick, then, is held first vertically, then horizontally, and is taken to represent such objects as needles, pencils, matches, rulers. Then twenty of them are put in a row, and then again each is identified with the object for which it stands. In other words, the sticks have given form and name to twenty objects, some of which have hitherto been but vaguely apprehended. Further, through the comparison involved the powers of observation and understanding are quickened, and so the wealth of percepts is increased.

The next set of exercises employs two sticks, made into a candlestick, a knife and fork, a bridge over a brook, a hammer, a pair of tongs, scissors, and such two-fold objects. Each thing thus made by a child is put into the middle of the table, so that the memory of all in the class is strengthened and their percepts improved.

Then follow exercises to teach the forms of angles. They are first made simply as angles while the names are given in accompanying songs, then they are taken as representative of such objects as a roof, a pair of compasses, a high-pitched bridge, crosses, garden fences.

CHAPTER VII

THE CHILD'S PLEASURE IN DRAWING

THE healthy child always wants to be active and to have something to do, because his inner life of mind and soul seeks outward manifestation in act and deed. The ultimate ground of all the activity of childhood is the life derived from God. Hence, the child invests with life everything about him, and that not with the mere life of sensation and movement but with the fully conscious life of will and choice, regarding all things as objects issuing from the will of God. Not only so, but the child's own imaginings appear to him in concrete living form; sheep are evolved now from white stones, now from beans, now from buds of willow or poplar. Sticks must be trees, blocks must become persons; even the child's own fingers are for him now other boys, now fish, now birds.

The first objects on which the child's innate impulses to activity, and even his first educative activities, are exercised, are his own limbs and often his whole body. He puts his fingers and hands in different positions, and even tries to represent different things with them, and does the like with his body as a whole. These symbolized objects are at first solid, palpable, rigid. The child first tests their independence, mobility, pliability, power of combination and separation. Then, through his first playthings,—globes, wooden blocks, stones, ball—he, so to say, bears witness externally to what lives within him;

he produces outside himself what he perceives within his mind, so that what he does is a visible sign of the impulse and creative instinct which prompts him, and indicates its nature. This kind of indication is very important, but even more valuable is that furnished by his attempts at drawing.

Tentatively during the child's second year, and definitely at the beginning of the third year, solid and rigid playthings begin to be replaced in two ways. In the one, by matter still solid but impressionable, such as soft clay, wet sand, even moving water when its course can be determined, and air when it propels or rotates appropriate objects. In the other, by less solid things, as tablets, smooth paper, sticks, and threads; later, by dry sand, sawdust, the visible breathing on glass, by objects which leave traces when they are rubbed, such as slate and slate-pencil, paper and lead-pencil or crayons; and lastly, by coloured liquids and pigments. So the child's delight in drawing and painting indicates that these are essential means of his education. It is the same with singing and song. For even the transient note, so easily produced by voice or sounding bell, by glass or metal, and so immediately dying away, serves for outward expression of feeling or thought or idea.

But as the rigid playthings demand a lively fancy to see in them any resemblance to the things they are accepted as representing, while the soft impressionable material allows the outer form to correspond more closely to the inner idea, so the sticks only represent roughly the outlines of things which the finger passing over glass dimmed by the breath can trace easily and much more perfectly. But more perfectly still is this accomplished by slate or paper and pencil.

Although, then, everything the child does, even his

play with the most rigid playthings, in a way draws and paints his inner spirit by representing outside himself what is living within him, yet it is in drawing and painting in the narrower sense—even though it be only drawing in dry sand or on dimmed glass—that he finds the most delightful and satisfying mode of expressing his ideas. Hence the cultivation in the child of the power of drawing is one of the most essential means of educating human nature both in the individual and in the race.

Drawing, though it makes little apparent demand on bodily strength, claims all the energies and trains the whole being. For the right position of finger and hand to secure freedom of movement necessitates a correct and free position of the right arm, and this in its turn demands a suitable position of the other limbs and of the whole body, if what is freely conceived is to be freely expressed. For free and skilled activity of body, and free and skilled activity of mind, involve and condition each other.

Free and true drawing demands also a free and skilful use of the senses ; not of sight only but equally of hearing and touch. Drawing needs a harmoniously developed soul, a sensitive feeling, a perceiving, comparing, and understanding, mind, an educated judgement, a power of correct inference, and a more or less clear idea of what is to be produced, which becomes increasingly precise as the representative activity progresses. This, further, both demands and trains attentive observation, the comprehension of the whole, memory, and imagination or the power of invention and combination. Above all, it opens the way to the whole formative power of human nature, it enriches the mind and heart, it furnishes the soul with clear concepts, true thoughts, and beautiful ideas. And these are the essential conditions for the evolution of that

true and vigorous life for which the child's nature instinctively longs and strives.

It is important that the child be early made to feel that a free and firm position of the body not only facilitates a free and untrammelled use of limbs and senses, but also induces a general feeling of tranquillity and ease, whether he be sitting or standing.

It is a general truth that whatever demands the willing energy of the child must be motivated by such a pure feeling of the agreeable as that with which the babe clings to its mother's breast; and that in immediate connexion with this must be the habit of doing right, just as later the feeling of right—which, whether weak or strong, is always easily aroused—joins with the habit of pleasant experience in determining action. The training of the child's creative powers through drawing must throughout foster these two feelings, each of which should be found early astir in the child, the one in a more physical and sensuous, the other in a more spiritual and intellectual, form.

With firm attitude and free position of the body, then, the training of arms, hands, and fingers, begins, both in rest and also in movement in extended straight and curved lines in all directions. The movements are at first made in free space; later on in sand or dust sprinkled over a plane surface, so that traces of the movement remain visible; later still on board, slate, or paper, with chalk or pencil or other material of which the marks can be effaced. This last, when definite purpose is added, becomes the drawing first of curved, then of straight, lines, and with such exercises the child should begin the development of his innate impulse to draw and of his capacity for creative drawing.

The drawing of curved and straight lines, then, is not merely connected with the simple movements of the

limbs, but starts directly from them in combination with consciousness of purpose. Lines of each kind are repeated again and again in various positions, especially the straight lines as vertical, horizontal, and oblique. But drawing, as a creative activity, must become fully conscious. Here, again, language gives the start. So, speech which explains, and which awakens consciousness, should be connected with drawing. But in this, as always, the child's activity springs from the feelings of the true, the beautiful, and the good. So the words accompanying the drawing should rather be sung than said, that they may appeal more readily to the feelings of the right and the beautiful.

The lines drawn by the child soon become representations of natural objects ; for example, the circle stands for sun, moon, an apple, a ball, a globe, a hoop, a ring ; or several entwined circles for a flower with three or four petals ; or for living things, such as a mouse, a lamb, or a pigeon. Then human life attracts him, and he wishes to draw a house. For this he must have a more exact grasp first of various positions and directions, especially of vertical and horizontal straight lines as determinants of those that are oblique ; next of the relations of the parts of the whole to a necessary middle-point or line ; finally of relative size gained by careful comparison with a definite and fixed standard of measurement. These three indispensable conditions of correct and beautiful drawing are secured only by carefully training the eye to measure. The way of doing this by means of drawing on squared paper has already been considered.¹

The child's joy in drawing is awakened and nourished according to the general law of vital development, by the desire to form wholes, to recognize particulars as parts

¹ See pp. 158-160.

of a whole, to find the link which connects opposites. In this law the child feels and sees his nascent creative power, and he applies it very early, if not at first in representing living things, yet as a mode of giving vent to his own mental activity; and, so to say, evolving forms out of himself. Here, then, we have another example of the development of true and pervading laws of life from quite simple activities. For, just as in observation the child descended from the whole as a unit, through the parts which compose it, to the lines which bound it, seeing each as a particular thing in a given connexion, so in drawing (1) he represents for himself by means of the lines a definite something existing outside himself, (2) he shows himself to be endowed with a firm will, (3) he indicates by speech that act of will and the deed by which it is carried out, (4) he develops his creative power and proves its reality, (5) he applies intuitively in his observations the simple and necessary laws of formation and life, (6) he thus attains consciousness and knowledge of himself, and to complete the circle and, in a sense, return to our starting-point, (7) he forms himself through knowing, willing, and doing, all centred in the self, to the life of a true man, a part of the universal life. So we see that the child's joyous impulse to draw and create is thus not simply given scope in producing indefinite shapes, but is developed according to the inherent formative laws of his life.

In this way the child who in the stage of unconscious impulse progressed from the round to the straight, now at the stage of dawning consciousness passes again from the straight to the round, to the circle; that is, to the opposite-like. For, though the circle as returning into itself is diametrically opposed to the straight line in respect of direction, yet both are alike in respect of the constancy and symmetry of the direction,

which once begun is continued according to the one selected law of origin. They are like also in that they are both lines, though opposite in law of formation. The round line of the circle returns into itself, so that its end and consequently its length, are determined from the beginning by its own nature. The straight line, on the contrary, progresses to infinity in the direction it indicates, and so never returns into itself. So both lines are here again the opposites of each other, and from this point of view also are seen to be opposite-likes.

Not only does the child represent opposite-likes, and even finite and infinite, visible and invisible, in the unity of one drawing, but in himself also opposite-like qualities are cultivated in harmony; above all, the infinite, invisible, unity of the divine being that is in him in harmony with the finite, visible, particular, bodily, being, so that he is developed in accordance with the dignity of his whole human nature. The fostering of the child's impulses to draw and to form in accordance with the laws of nature and life, so that they grow into skill and conscious creation, places him in the very centre of his whole living experience. Thus is fulfilled the first essential of his education—that he be fitted to meet all the possible needs and situations of his life in such a way that he is at once most efficient in his particular sphere and a most perfect manifestation of general human nature. Thus is knit the most direct living bond between creation, created, and creator.

So, the training of the child for the creative activity of freely imagined and inventive drawing is at once the starting-point, and the constant centre to which all else is referred, of true and complete education. Hence, the true kindergarten, inspired by this thought, leads to drawing in everything it does, however small it may be.

CHAPTER VIII

GAMES OF MOVEMENT

A PURPOSE to represent something, or to deal with something, directs all the actions of man, even in his earliest years. But to carry out his purposes, a man, and yet more a child, requires as means some independent material, though it be but a little piece of wood or a little stone, with which he can make something, or which he can turn into something. For this reason, in order to introduce the child to dealing freely with the material of his play, we gave him the ball, the globe evolving from it, the cube, and the other playthings already described. Each of these incites him to free, self-determined, activity. The consideration of the free games, consisting essentially of movement, which grow out of these plays, has not yet been specifically undertaken; for we have followed the principle seen to be operative in the mental development of children, of descending from the general and undifferentiated to the particular and differentiated. But now we have advanced sufficiently far in the consideration of the games whose essence is representation in and through the given material to turn aside to the specific discussion of those whose essence is movement.

In the fostering care of children it is not enough to give them material to deal with proportioned to their increasing bodily strength, but it is yet more necessary to

see clearly the inner core of energy and to satisfy its demands. In respect to this it is at once apparent that all the child's outward activity has its source in his innermost nature and life. But what he likes best is to represent this inner life by means of some object. For that helps him to understand himself, his acts and his purposes, which he thus sees reflected in a kind of mirror, so that they serve as a standard by which to measure and regulate his activity. This finding his spiritual life pictured in the objects before him is an essential preliminary to a knowledge and understanding of that life itself. So the true educator and guardian must most carefully follow this course of development prescribed by the child's own nature.

The bodily activity of the child should always be thought of in relation to his spiritual life, either as issuing from it or as exercising an influence upon it. In this two-fold relation the children themselves are our teachers and guides. For example, we see a little baby move joyfully about, skip and jump and toss his arms, when he sees some moving object apart from himself. This is not merely an expression of delight in that movement; it is the outcome of the spiritual energy which the perception of it has liberated. Further, observation of very young babies shows that they do not remain passive when they see a moving object, but try to follow it with their eyes, seeking to discover the origin and cause of the moving they have seen. So it is insight into the child's spiritual nature which the educator should mainly gain from observing the relation of a child to an object moving before him, and which, perhaps, he has himself set in motion. Observation of single and isolated phenomena may occasionally yield a hint or a suggestion, but it cannot suffice to give a comprehensive grasp of the nature of

man in the child, and through that of the training and care needed to bring him to the highest perfection possible to him. A process of education which does not keep its eye steadily fixed on this aim, has, properly speaking, no claim to be regarded as worthy of man.

After these preliminary remarks let us say a little about the beginning and the progressive course of the games of movement themselves.

As the ball moves gently, rolls, and runs, the child shows an impulse to move and to walk. Walking gives him a three-fold consciousness—that he can move, that he can pass from one place to another, and that he can in this way attain something. So it is necessary to watch and tend carefully his first attempts at walking and these accompanying feelings. When he first walks care should be taken that he walks surely and regularly, using all his strength, so that even in these first attempts he should begin to gain control over body and limbs and to learn to direct them towards a goal. When we watch the little ones we see what delight they manifest when they are near enough to the object for which they are making to touch it. It is well then to name it to the child: "This is a chair, a table." Similarly, the parts should afterwards be named: "This is the seat, the leg," and so on. So with its qualities: "The chair is hard or soft"; "the seat is smooth"; "the corner sharp."

The end in view is not the development of the powers of speech, but the apprehension of the objects, their parts and qualities, and the impressions they produce on him. But such a treasure of experience necessarily develops the capacity for speech; and speech, as it were, bursts forth through increase in mental energy, and in harmony with the real nature of mental life. To help the child

from the very beginning of his attempts at walking to gain such a wealth of experience, it is well to let him pull himself up by help of the objects, and walk round them. Every new appearance is a new discovery in his small but well-filled world ; as, for instance, that one can walk round a chair, can stand at one time in front of it, at another at its side, but that with bench or wall one can only pass straight in front. Moreover this removes tedium from the care of children, and renders it a stimulating and soul-satisfying occupation.

Even the smallest child with the least power of walking loves to wander, that is, to change his relations to the objects near him so that he may gain knowledge both of himself and of his surroundings. Each little walk is a journey of discovery ; each new object is an America, a new land around which he voyages discovering it to be an island, or along which he can only coast finding it to be mainland.

Through these apparent digressions we come to a quite new series of games.

A. *The Wander Games* have for their aim the training of walking and the power of independent movement. They are journeys of discovery, games for enriching observation and experience.

First Game : “ *The Child too would Wander.* ”

The children stand in a circle, the ball has been passed round from one to the other, and has aroused in them the desire that they too should move about. The leader of the game observes this and arrests the ball. Then leading a child by the hand into the middle of the ring, she says : “ Lina—or Adolf—would also like to wander about.” Or, if she sees that the moving ball no longer attracts, she arouses the sleepy feelings of the children by asking : “ Would not one of you like to wander ? ”

The question brings forth an immediate response of "I," "I," from a number of them. The leader then sings—

" Little Lina [Adolf] too would roam
To each person in the room."

The child in the centre gives his hand to one of the children, and then moves on from child to child, greeting each with a little verse; then each takes the hand of another and they move around in a ring, going in the opposite direction to that of the child in the middle; and singing some such verse as the above.

Then such questions may be asked as "Whom did you get to know on your journey?" the answer being the names of all the children standing round. This teaches two lessons—that an object should not be heedlessly passed by, and that its name should be learnt. Another exercise is to set the child to name the children in the order in which he greeted them. With very small children each child when named should be pointed out with the finger; with somewhat older children the eye is sufficient to indicate them; with yet greater age the child may turn round and name them without looking at them; finally, their names may be said with the eyes shut, and even in reverse order. Thus is fostered a continuous mental growth.

Second Game: "*We would all wander.*" In this the children wander in pairs.

Third Game: A large number of children in a small space, in groups of, say, four or eight, form such figures as a star, walk in a spiral, or do similar things.

Fourth Game: *Visiting Games*: The children stand by two walls, and one division sings—

" We who are opposite
Wish to go visiting,"

and as they sing each row goes forward, till the two sets meet, and one sings "We greet you," the others "We thank you."

After all have returned to their places the leader of the games asks the children what they have seen during their visit. The objects named are then woven into a story, and as each is named in it the child who saw it must raise his arm as a sign that he is attending, and also to ensure the teller of the story that nothing is omitted.

Fifth Game : "*The Meandering Brook.*"

B. Games of Representation : in which such objects as a slowly moving snail, a mill, a wheel, a circle, a star, a flower, are represented by movements.

C. Running Games.

D. Walking Games.

CHAPTER IX

CHILDREN'S GARDENS

THE great importance for the development both of the individual and of the race of an intimate familiarity with nature has already been several times emphasized. It is really the one sure foundation of all true culture, for to know nature well means to see in it the first and most immediate revelation of the divine energy. But we have not as yet worked out the thought in detail. This importance is especially related to growth and development in nature observed and compared with growth and development in mankind, and so in the individual himself. But important as this is for all men, it is yet more so for the human being who is still growing and developing, that is, for the child and the youth. Hence, a full and sufficient education must give opportunity for such comparative observation. This is the complete and perfect idea of a *kindergarten*, which implies in its very name that it is a *garden of children*. So the root-idea of a kindergarten demands that it should have gardens for the children who attend it.

This association of gardens with a kindergarten is also demanding by social and civic life. For the child, as part of humanity, must not only be recognized by others as at once an individual and a part of the larger whole of life, but he must so regard himself, and must order his life on that principle. This interchange of activity

between the individual and the community is nowhere more strikingly and beautifully seen than in the tending of plants in common when each child has his own little plot in the family garden. But in the kindergarten, where there are many children and their gardens are the most important thing, a somewhat different arrangement is required. Here the little garden-beds of the children must be surrounded by the common garden, as always the particular rests amid the general by which it is surrounded and protected.

Besides showing this relation of the particular to the general, of the part to the whole, and so symbolizing the child in the family, the citizen in the community, the garden should furnish instruction about things, and particularly about shrubs and plants. This is secured by asking the child to compare the plants and shrubs standing near each other.

From these considerations may be derived principles for laying-out the garden of a kindergarten.

(1) The most convenient shape for the whole space is a rectangle. Other simple forms—such as circles and ovals—are not excluded, but they do not seem to fulfil the purpose so well as a rectangle.

(2) This whole space should be divided into two parts—a general and a particular; or, in other words, one for the whole community and one for the individual children.

(3) The general part encloses, and, so to say, protects the particular part.

(4) The children neither can, nor should, be introduced to the whole world of plants, but only to that part of it which is most closely related to human needs; that is, field plants, and garden plants in the narrower sense. So the general land should be divided into field and garden.

(5) This garden land should be sub-divided into flower garden and vegetable garden.

(6) The field land should be sub-divided into plots for corn, for leguminous, tuberous, herbaceous, and root, plants, and for pasture.

(7) If the amount of land available be large, larger plots may be given to the children for their gardens, or each child may have a piece for himself. But if there be many children and but little land, two children may share their little plot. And this sharing has its good side, for it teaches the children to live in harmony, and each is, in a way, enriched by what the other has in his bed. Where there is land enough, each child may have a square metre; where there is less, two children may share a plot of a metre and a half square, or even as little as a square metre when the proportion between land and number of children necessitates it.

(8) The paths which at once divide and connect the whole are either main paths, or branch paths running between the little beds. These latter may be twenty-five centimetres wide, but it is well to make the main path a metre broad so that two children can walk along it side by side.

So much for the general division and use of the land. This also may be added :

In their own beds the children may plant what and how they like, and do what they will with the plants. Thus they will learn from misuse that plants should be treated carefully and according to rule. How to do this will be shown them in the common garden, where they will have to observe the plants quietly and systematically, so that they may see all the processes of their development from seed, through sprouting, growing, blooming, and ripening, back again to seed. So the children should

examine and compare the seeds before they are planted side by side in the common ground, that they may be able to distinguish them and learn the names of the plants that spring from them. In summer and autumn the newly-formed seeds are collected and preserved, either for use during winter or to be planted in the coming spring. They are best kept in little cardboard boxes which the children have previously made for the purpose. A similar comparative method of observation can be carried out with plants which can be transplanted or re-bedded.

Each owner of a little garden must be held personally responsible for keeping it clean and well tended ; but the care of the general garden must be a common responsibility, or must be shared in turn on definite days.

It is well to write the name of each plant in plain letters on a little stick, that the children may see the name whenever they look at the plant. Each child's little plot should also be marked with his name. Then each child can find his friend's garden. Moreover, the name standing in the plot is a silent awarder of praise or blame to the child who has tended his garden well or ill. And further, a child who is backward in reading practises recognition of the letters as he seeks for them on the labels.

Finally, through all these ways the child attains both a general knowledge of the whole and an insight into the parts, so that his memory is impressed simultaneously with relations of place, object, name, qualities, and time (through noting the various stages of development of the plant), and combines them.

Yet even this does not exhaust the value of the children's garden and its effects on them. For just as in the garden the child sees a picture of true life in family and civic community, where the whole protects the part and

the part serves the whole, so in the successive stages of the life of each plant he finds an analogy to his own life, and so attains a better understanding of it. For it is an inestimable advantage for the human being to get in early days even a dim idea of the general course of his life as a whole. And this only comes to a boy or girl through the tending of a garden under competent guidance, and the watching how plants are cared for by those who understand them and are experienced in their cultivation.

No more need be said on the effect such care of plants will have both on the intelligence and knowledge, and on the feelings and the whole originative life, of the child. For he who stands in the midst of the whole and grows both in it and out of it must understand it. So parents who possess gardens should never fail to let their children have some little space in which they can form a little bed of plants. In this, with only the simple guidance which a love of nature suffices to give, their children will find a source of moral elevation and strength. Even the careful tending of a little window-garden is a pure means of moral refinement for the child. So educative is the influence of nature—even in the simplest plant—on him who early welcomes with open heart and mind its beneficent influence.

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